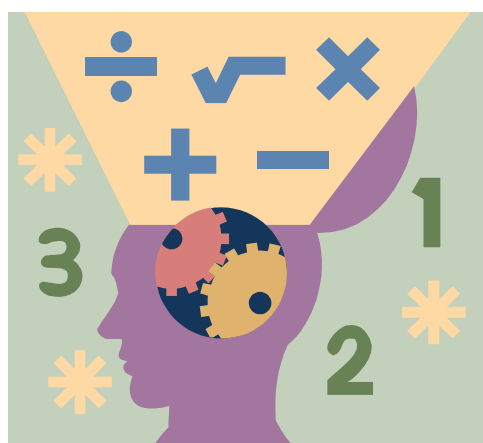


40-Day Countdown

State Tested Benchmark Review
for NGSSS Mathematics

GRADE 7



Region Center II
Mr. Jose Dotres, Region Superintendent
Miami-Dade County Public Schools

40-Day Countdown for Middle School Mathematics

Region Center II

January 2011

Grades 6–8



This 40-Day Math Countdown to FCAT 2.0 has been developed as an instructional review resource that provides:

- Daily focus on five benchmark questions covering each tested Big Idea and Supporting Idea.
- Benchmark review items compiled from released NGSSS new Test Item Specifications examples and the Florida Achieves FOCUS Benchmark practice test items.
- Daily 15 to 20-minute review lessons for the beginning of each class period.
- Multiple re-teaching opportunities to meet the needs of students.
- Repeated exposure and review in CORE mathematics classes of the types of problems students will encounter on the FCAT 2.0 exam.
- Math problems that are introduced the first day are followed by repeated problems presented in subsequent days with different numbers and values to promote practice and content application.
- Practice and review without interfering with the scope and sequence of district pacing guides.
- Ideal review for secondary students currently taking Algebra, Geometry, and advanced courses, to provide exposure to benchmarks tested at a particular grade level.

The original Countdown materials were revised in December, 2010 by Michèle S. Weiner, Assistant Principal at Sunny Isles Beach Community School, Dr. Maureen Campbell and Shelley Werner, Curriculum Support Specialists, Region Center II.

Grades 6–8 FCAT 2.0 Mathematics Reference Sheet

Area

Rectangle	$A = bh$
Parallelogram	$A = bh$
Triangle	$A = \frac{1}{2}bh$
Trapezoid	$A = \frac{1}{2}h(b_1 + b_2)$
Circle	$A = \pi r^2$

KEY

b = base	A = area
h = height	B = area of base
w = width	C = circumference
d = diameter	V = volume
r = radius	P = perimeter of base
ℓ = slant height	$S.A.$ = surface area

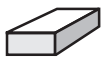



Use 3.14 or $\frac{22}{7}$ for π .

Circumference

$$C = \pi d \quad \text{or} \quad C = 2\pi r$$

Volume/Capacity

Total Surface Area

	Rectangular Prism	$V = bwh$ or $V = Bh$	$S.A. = 2bh + 2bw + 2hw$ or $S.A. = Ph + 2B$
	Right Circular Cylinder	$V = \pi r^2 h$ or $V = Bh$	$S.A. = 2\pi rh + 2\pi r^2$ or $S.A. = 2\pi rh + 2B$
	Right Square Pyramid	$V = \frac{1}{3}Bh$	$S.A. = \frac{1}{2}P\ell + B$
	Right Circular Cone	$V = \frac{1}{3}\pi r^2 h$ or $V = \frac{1}{3}Bh$	$S.A. = \frac{1}{2}(2\pi r)\ell + B$

Sum of the measures of the interior angles of a polygon = $180(n - 2)$

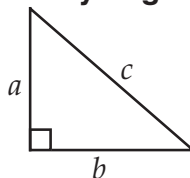
Measure of an interior angle of a regular polygon = $\frac{180(n - 2)}{n}$

where:

n represents the number of sides

Grades 6–8 FCAT 2.0 Mathematics Reference Sheet

Pythagorean theorem



$$a^2 + b^2 = c^2$$

Simple interest formula

$$I = prt$$

where p = principal, r = rate, t = time

Slope-intercept form of a linear equation

$$y = mx + b$$

where m = slope and b = y -intercept

Distance, rate, time formula

$$d = rt$$

where d = distance, r = rate, t = time

Conversions within a System of Measure

1 yard = 3 feet

1 mile = 1,760 yards = 5,280 feet

1 acre = 43,560 square feet

1 cup = 8 fluid ounces

1 pint = 2 cups

1 quart = 2 pints

1 gallon = 4 quarts

1 pound = 16 ounces

1 ton = 2,000 pounds

1 meter = 100 centimeters = 1000 millimeters

1 kilometer = 1000 meters

1 liter = 1000 milliliters = 1000 cubic centimeters

1 gram = 1000 milligrams

1 kilogram = 1000 grams

1 minute = 60 seconds

1 hour = 60 minutes

1 year = 52 weeks = 365 days

Conversions between Systems of Measure

When converting from Customary to Metric, use these approximations.

1 inch = 2.54 centimeters

1 foot = 0.305 meter

1 mile = 1.61 kilometers

1 cup = 0.24 liter

1 gallon = 3.785 liters

1 ounce = 28.35 grams

1 pound = 0.454 kilogram

When converting from Metric to Customary, use these approximations.

1 centimeter = 0.39 inch

1 meter = 3.28 feet

1 kilometer = 0.62 mile

1 liter = 4.23 cups

1 liter = 0.264 gallon

1 gram = 0.0352 ounce

1 kilogram = 2.204 pounds

Temperature conversions between Celsius and Fahrenheit

$$^{\circ}\text{C} = (^{\circ}\text{F} - 32) \div 1.8$$

$$^{\circ}\text{F} = (^{\circ}\text{C} \times 1.8) + 32$$

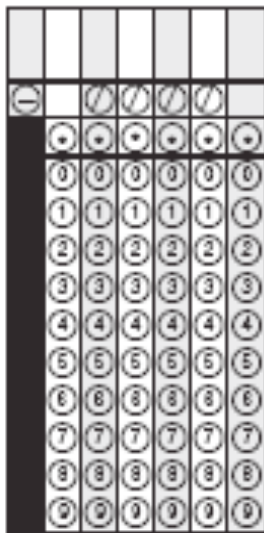
MA.7.A.3.1

1. Which sum is farther from zero?

- A. the sum of 153 and 95
- B. the sum of -152 and -97
- C. the sum of – 153 and -95
- D. the sum of -152 and 97

MA.7.A.3.2

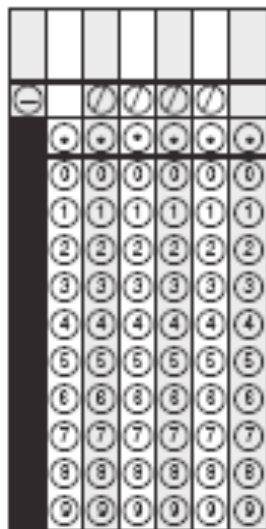
2. What is the value of the expression below?



$$\frac{4^3 - 10}{4 - 6}$$

MA.7.A.3.3

3. When Eric became a member of an exercise gym, he paid a one-time fee of \$250. He then had to pay \$79.95 per month. So far, Eric has paid a total of \$969.55, not including tax. What is the number of months for which Eric paid?



MA.7.A.5.1

4. Jackie converted four decimal numbers to fractions.

JACKIE'S CONVERSIONS				
Decimal	0.002	0.7	0.125	0.6
Fraction	$\frac{1}{500}$	$\frac{7}{10}$	$\frac{7}{8}$	$\frac{3}{5}$

Which decimal number did she convert incorrectly?

- F. 0.6
- G. 0.125
- H. 0.7
- I. 0.002

MA.7.S.6.1

5. Nature and the Outdoors Magazine conducted a survey to find out if the public was in favor of banning oil drilling in Florida. To gather information for the article, the magazine sent an opinion poll to 200 subscribers to their magazine. The study showed that 97% of the people polled supported the ban on oil drilling.

In their magazine, they stated:

“Most Americans support a ban on oil drilling.”

Why is this not a valid statement?

- A. The sample size was too small to draw these conclusions.
- B. The sample included people that drive cars.
- C. The sample population was biased and not big enough to make this claim.
- D. The sample size was too large to make this claim.

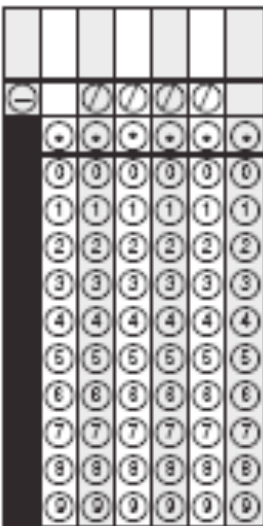
MA.7.A.3.1

1. If it is -58° in Anchorage, Alaska, and 85° in Miami, Florida, what is the temperature difference between both places?

- A. 27° C. 37°
B. 123° D. 143°

MA.7.A.3.2

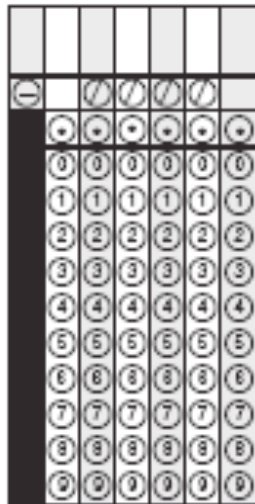
2. What is the value of the expression below?



$$\frac{3^3 \times 10}{4 - 7}$$

MA.7.A.3.3

3. When Eric became a member of an exercise gym, he paid a one-time fee of \$275. He then had to pay \$84.95 per month. So far, Eric has paid a total of \$954.60, not including tax. What is the number of months for which Eric paid?



MA.7.A.5.1

4. Jackie converted four decimal numbers to fractions.

JACKIE'S CONVERSIONS				
Decimal	0.005	0.3	0.625	0.8
Fraction	$\frac{1}{200}$	$\frac{3}{10}$	$\frac{7}{8}$	$\frac{4}{5}$

Which decimal number did she convert incorrectly?

- F. 0.005 H. 0.625
G. 0.3 I. 0.8

MA.7.S.6.1

5. The Rifle and Firearms Magazine conducted a survey to find out if the public was in favor of banning guns in Florida. To gather information for the article, the magazine sent an opinion poll to 100 subscribers to their magazine. The study showed that 95% of the people polled did not support banning guns.

In their magazine, they stated:

"Most Americans are not in favor of banning guns."

Why is this statement not valid?

- A. The sample size was too small to draw these conclusions.
B. The sample included people that practice target shooting.
C. The sample size was too large to make this claim.
D. The sample population was not large enough to make this claim and they were biased.

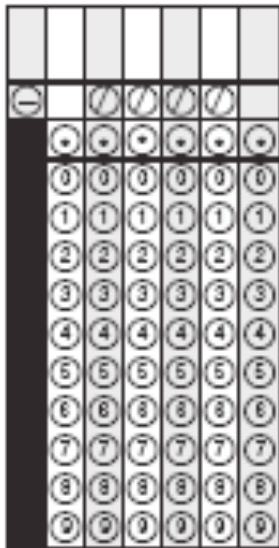
MA.7.A.3.1

1. The lowest elevation in the United States is at Death Valley in California. It is 86 meters below sea level. The highest elevation is Mr. McKinley, Alaska, at 6,194 meters. What is the difference between the highest and lowest points?

- A. 6,108 meters C. 6,280 meters
B. 6,118 meters D. 6,290 meters

MA.7.A.3.2

2. What is the value of the expression below?



$$\frac{2^4 - 25}{9}$$

MA.7.A.3.3

3. When Eric became a member of an exercise gym, he paid a one-time fee of \$265. He then had to pay \$99.95 per month. So far, Eric has paid a total of \$1,364.45, not including tax. What is the number of months for which Eric paid?



MA.7.A.5.1

4. Peter is using his calculator to find the area of a plot of ground for a small garden. Peter's calculator shows 48.12 on its display after he enters the length and width of the plot and multiplies. Which number is equivalent to 48.12?

- F. $48\frac{1}{25}$ H. $48\frac{4}{25}$
G. $48\frac{3}{25}$ I. $48\frac{12}{25}$

MA.7.S.6.1

5. The Party Celebration store sells items people use when giving parties. They are trying to increase the number of customers that visit their store. They surveyed a sample of their customers to find out what particular items they were interested in purchasing. Which of the following would be the best way for the Party Celebration store to decrease the bias in their survey?

- A. Give the survey to every business on their block
B. Give the survey to every fourth customer that comes in the store two times a week
C. Give the survey to the general public, both customers and non-customers
D. Give the survey to only their most loyal customers

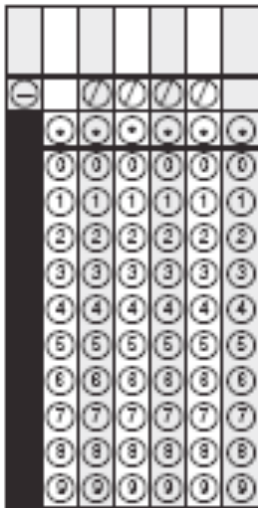
MA.7.A.3.1

1. Which sum is the closest to zero?

- A. the sum of $-60 + 35$
- B. the sum of $-145 + 51$
- C. the sum of -160 and -35
- D. the sum of -145 and -51

MA.7.A.3.2

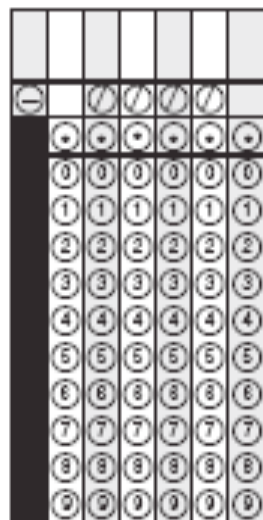
2. What is the value of the expression below?



$$\frac{3 - 4^2}{2.5}$$

MA.7.A.3.3

3. When Eric became a member of an exercise gym, he paid a one-time fee of \$295. He then had to pay \$69.95 per month. So far, Eric has paid a total of \$1,134.40, not including tax. What is the number of months for which Eric paid?



MA.7.A.5.1

4. Jack's father bought a piece of wood to make a coffee table. Which statement is true if the dimensions of the wood are 3.875 feet by 4.625 feet?

- F. The dimensions of the wood are $3\frac{7}{8}$ feet by $4\frac{5}{8}$ feet.
- G. The dimensions of the wood are $3\frac{3}{4}$ feet by $4\frac{1}{4}$ feet.
- H. The dimensions of the wood are $3\frac{8}{25}$ feet by $4\frac{6}{25}$ feet.
- I. The dimensions of the wood are $3\frac{7}{25}$ feet by $4\frac{5}{25}$ feet.

MA.7.S.6.1

5. A cable television company will add new channels to its service. The company president wants to have 100 customers surveyed by telephone in a single weekend to find out what kind of channels customers want. Which method would increase the bias in the survey?

- A. performing the survey over a period of one week
- B. increasing the number of customers surveyed to 300
- C. surveying the 100 customers who have had cable service with this company for the longest period of time
- D. mailing the survey questions to all the customers and offering a 25% discount on cable service to the first 100 customers who return the survey

MA.7.A.3.1

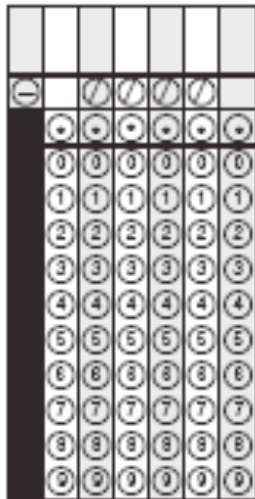
1. If it is -34° in Anchorage, Alaska, and 90° in Miami, Florida, what is the temperature difference between both places?

- A. 56°
B. 66°
C. 64°
D. 124°

MA.7.A.3.2

2. What is the value of the expression below?

$$\frac{12 + 3^4}{12}$$



MA.7.A.3.3

3. When Eric became a member of an exercise gym, he paid a one-time fee of \$279. He then had to pay \$109.95 per month. So far, Eric has paid a total of \$938.70, not including tax. What is the number of months for which Eric paid?



MA.7.A.5.1

4. The painting, *Mona Lisa*, is protected by a glass cover that is $1\frac{13}{25}$ inches thick. Which value is equivalent to $1\frac{13}{25}$?

- F. 1.125 H. 1.520
G. 1.265 I. 1.920

MA.7.S.6.1

5. Mr. Parks surveyed all of his students to find out how many hours they studied for a class test. He used the range to generalize that most of his students studied for 5 hours. Why is the generalization Mr. Parks made misleading?

- A. Range involves only the highest and lowest response.
B. The word **study** was not clearly defined.
C. The survey was taken after the test.
D. Not all students were surveyed.

MA.7.A.1.1

1. Larry's recipe for chocolate fudge requires the following ingredients:

- 3 Cups semi- sweet chocolate chips
- 14 Ounces sweetened condensed milk
- $\frac{3}{4}$ Cup chopped nuts
- $1\frac{1}{2}$ Teaspoons vanilla extract

Larry is making a large batch of his fudge and will use 12 cups of semi-sweet chocolate chips. Based on this information, what is the total number of ounces of sweetened condensed milk he will need to use?

MA.7.A.1.2

2. Mario studied the temperature changes that occur when cold fronts pass through a region. One day, he recorded the temperature in the morning and again after a cold front passed through in the afternoon.

RECORDED TEMPERATURES

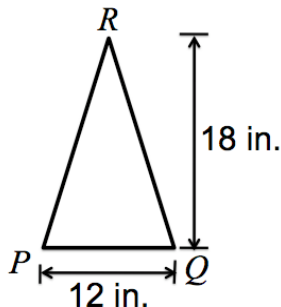
Time of Day	Temperature (in degrees Fahrenheit)
8:00 a.m.	55°
6:00 p.m.	27°

Which is closest to the percent of decrease in these temperatures?

- | | |
|--------|--------|
| A. 28% | C. 51% |
| B. 49% | D. 96% |

MA.7.A.1.3 GR

3. The height and base of Isosceles triangle PRQ are shown in the diagram.



Evelyn drew another Isosceles triangle that was similar to triangle PRQ. Which of the following could be the dimensions of the triangle Evelyn drew?

- F. height 54 inches; base 24 inches
- G. height 24 inches; base 18 inches
- H. height 12 inches; base 9 inches
- I. height 9 inches; base 6 inches

MA.7.A.3.3

4. Which steps would solve $\frac{2}{3}x - 4 = 10$?

- A. Add 4 to both sides of the equation, then multiply both sides by $\frac{2}{3}$.
- B. Add 4 to both sides of the equation, then multiply both sides by $\frac{3}{2}$.
- C. Subtract 4 from both sides of the equation, then multiply both sides by $\frac{2}{3}$.
- D. Subtract 4 from both sides of the equation, then multiply both sides by $\frac{3}{2}$.

MA.7.S.6.2

5. The retake test scores for Mr. Centrinio's two Social Studies classes are displayed on the stem-and-leaf plot below.

SOCIAL STUDIES TEST SCORES

PER. 1		PER. 2	
STEM	LEAF	STEM	LEAF
6	9	6	7
7	8	7	5
8	9	8	0 3
9	1 7	9	5 7
10	0		

KEY: 4|9 = 49

How many students in both classes had test scores between 70 and 98?

- | | |
|------|-------|
| F. 4 | H. 9 |
| G. 5 | I. 12 |

MA.7.A.1.1

1. Larry's recipe for chocolate fudge requires the following ingredients:

- $3\frac{1}{2}$ Cups semi-sweet chocolate chips
- 14 Ounces sweetened condensed milk
- $\frac{3}{4}$ Cup chopped nuts
- $1\frac{1}{2}$ Teaspoons vanilla extract

Larry is making a large batch of his fudge and will use 21 cups of semi-sweet chocolate chips. Based on this information, what is the total number of cups of chopped nuts he will need to use?

MA.7.A.1.2

2. Mario studied the temperature changes that occur when cold fronts pass through a region. One day, he recorded the temperature in the morning and again after a cold front passed through in the afternoon. (Round to the nearest hundredth's place if needed).

RECORDED TEMPERATURES

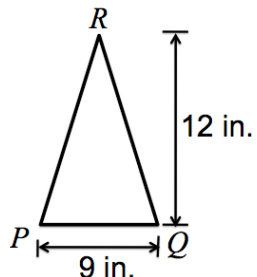
Time of Day	Temperature (in degrees Fahrenheit)
8:00 a.m.	60°
6:00 p.m.	35°

Which is closest to the percent of decrease in these temperatures?

- A. 41% C. 71%
- B. 42% D. 95%

MA.7.A.1.3

3. The height and base of isosceles triangle PRQ are shown below.



Evelyn drew another isosceles triangle that was similar to triangle PRQ. Which of the following could be the dimensions of the triangle Evelyn drew?

- F. height 54 inches; base 24 inches
- G. height 24 inches; base 18 inches
- H. height 15 inches; base 10 inches
- I. height 9 inches; base 6 inches

MA.7.A.3.3

4. Which steps would solve $\frac{1}{4}x - 7 = 26$
- A. Subtract 7 from both sides of the equation, then multiply both sides by $\frac{1}{4}$.
- B. Subtract 7 from both sides of the equation, then multiply both sides by 4.
- C. Add 7 to both sides of the equation, then multiply both sides by $\frac{1}{4}$.
- D. Add 7 to both sides of the equation, then multiply both sides by 4.

MA.7.S.6.2

5. The stem-and-leaf plot below shows the recorded low temperatures for 10 major cities in the United States on a day in June.

**Low Temperatures in
Ten Cities (°F)**

STEM	LEAF	
3	3	
4	6	
5	4 6	
6	5 7 8	KEY: 6 7 = 67°
7	1 3 6	

How many cities had a recorded low temperature greater than 60°?

- F. 8 H. 4
- G. 6 I. 2

MA.7.A.1.1

1. Larry's recipe for chocolate fudge requires the following ingredients:

- $2\frac{1}{2}$ Cups semi-sweet chocolate chips
- 14 Ounces sweetened condensed milk
- $\frac{3}{4}$ Cup chopped nuts
- $1\frac{1}{2}$ Teaspoons vanilla extract

Larry is making a large batch of his fudge and will use 25 cups of semi-sweet chocolate chips. Based on this information, what is the total number of teaspoons of vanilla extract he will need to use?

MA.7.A.1.2

2. Mario studied the temperature changes that occur when cold fronts pass through a region. One day, he recorded the temperature in the morning and again after a cold front passed through in the afternoon. (Round to the nearest hundredth's place if needed).

RECORDED TEMPERATURES

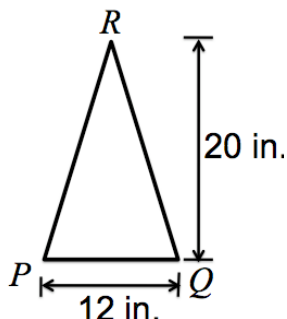
Time of Day	Temperature (in degrees Fahrenheit)
8:00 a.m.	52°
6:00 p.m.	25°

Which is closest to the percent of increase in these temperatures?

- A. 27% C. 52%
B. 51% D. 77%

MA.7.A.1.3

3. The height and base of Isosceles triangle PRQ are shown in the diagram.



Evelyn drew another isosceles triangle that was similar to triangle PRQ. Which of the following could be the dimensions of the triangle Evelyn drew?

- F. height 36 inches; base 18 inches
G. height 24 inches; base 18 inches
H. height 16 inches; base 6 inches
I. height 5 inches; base 3 inches

MA.7.A.3.3

4. Which steps would solve $\frac{5}{6}x + 8 = 68$?

- A. Subtract 8 from both sides of the equation, then multiply both sides by $\frac{5}{6}$.
B. Subtract 8 from both sides of the equation, then multiply both sides by $\frac{6}{5}$.
C. Add 8 to both sides of the equation, then multiply both sides by $\frac{5}{6}$.
D. Add 8 to both sides of the equation, then multiply both sides by $\frac{6}{5}$.

MA.7.S.6.2

5. A band director made the stem-and-leaf plot below to show the number of minutes each member of the brass section practiced over the weekend.

Minutes Practiced

STEM	LEAF
1	5 8
2	2 5 5
3	0 0 4 8
4	3 4
5	5
6	0 5 5

KEY: 4|3 = 43

What fractional part of the brass section practiced for at least 30 minutes?

- F. $\frac{4}{15}$ G. $\frac{7}{15}$ H. $\frac{8}{15}$ I. $\frac{2}{3}$

MA.7.A.1.1

1. Karen's recipe for sugar cookies requires the following ingredients:

- $2\frac{1}{4}$ cups all-purpose flour
- 1 cup butter or margarine, softened
- $\frac{3}{4}$ cup granulated sugar
- $\frac{3}{4}$ cup packed brown sugar
- 1-teaspoon vanilla extract

Karen is making cookies for a school fund raising sale. She will use $15\frac{3}{4}$ cups of all-purpose flour. Based on this information, what is the total number of cups of brown sugar she will need to use?

MA.7.A.1.2

2. Mario studied the temperature changes that occur when warm fronts pass through a region. One day, he recorded the temperature in the morning and again after a warm front passed through in the afternoon. (Round to the nearest hundredth's place if needed).

RECORDED TEMPERATURES

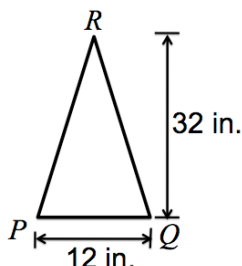
Time of Day	Temperature (in degrees Fahrenheit)
8:00 a.m.	42°
6:00 p.m.	60°

Which is closest to the percent of increase in these temperatures?

- A. 30% C. 43%
B. 42% D. 102%

MA.7.A.1.3

3. The height and base of Isosceles triangle PRQ are shown below.



Evelyn drew another isosceles triangle that was similar to triangle PRQ. Which of the following could be the dimensions of the triangle Evelyn drew?

- F. height 54 inches; base 24 inches
G. height 24 inches; base 18 inches
H. height 16 inches; base 6 inches
I. height 9 inches; base 6 inches

MA.7.A.3.3

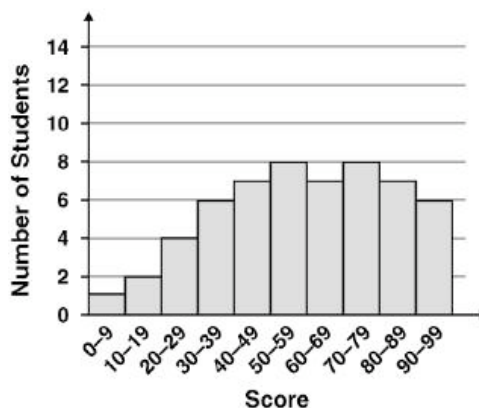
4. Which steps would solve $\frac{3}{4}x + 10 = 46$?

- A. Add 10 to both sides of the equation, then multiply both sides by $\frac{3}{4}$.
B. Add 10 to both sides of the equation, then multiply both sides by $\frac{4}{3}$.
C. Subtract 10 from both sides of the equation, then multiply both sides by $\frac{3}{4}$.
D. Subtract 10 from both sides of the equation, then multiply both sides by $\frac{4}{3}$.

MA.7.S.6.2

5. Students in a driver education class were given a pretest covering information that will be on the written part of the driver's test. The scores earned on this pretest are summarized in the histogram below.

Student Scores



What percent of the students received a score of 60 or greater?

- F. 12.5% H. 50%
G. 37.5% I. 64%

MA.7.A.1.1

1. Karen's recipe for sugar cookies requires the following ingredients:

- $2\frac{1}{4}$ cups all-purpose flour
- $1\frac{1}{2}$ cup butter or margarine, softened
- $\frac{3}{4}$ cup granulated sugar
- $\frac{3}{4}$ cup packed brown sugar

Karen is making cookies for a school fund raising sale. She will use $12\frac{3}{8}$ cups of all-purpose flour. Based on this information, what is the total number of cups of butter she will need to use?

MA.7.A.1.2

2. Mario studied the temperature changes that occur when warm fronts pass through a region. One day, he recorded the temperature in the morning and again after a warm front passed through in the afternoon. (Round to the nearest hundredth's place if needed).

RECORDED TEMPERATURES

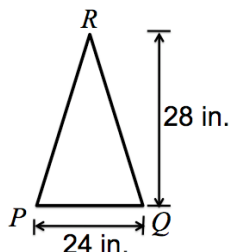
Time of Day	Temperature (in degrees Fahrenheit)
8:00 a.m.	37°
6:00 p.m.	58°

Which is closest to the percent of increase in these temperatures?

- A. 21% C. 56%
B. 36% D. 57%

MA.7.A.1.3

3. The height and base of isosceles triangle PRQ are shown below.



Evelyn drew another isosceles triangle that was similar to triangle PRQ. Which of the following could be the dimensions of the triangle Evelyn drew?

- F. height 56 inches; base 48 inches
G. height 24 inches; base 18 inches
H. height 12 inches; base 9 inches
I. height 8 inches; base 6 inches

MA.7.A.3.3

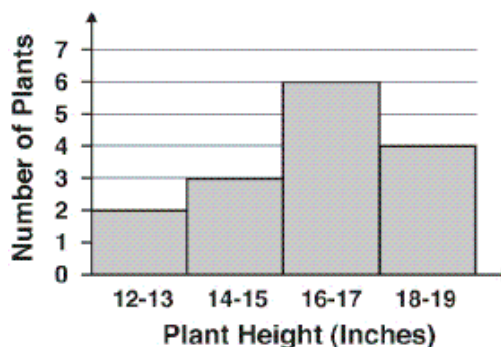
4. Which steps would solve $\frac{3}{5}x - 7 = 41$?

- A. Add 7 to both sides of the equation, then multiply both sides by $\frac{3}{5}$.
B. Subtract 7 from both sides of the equation, then multiply both sides by $\frac{3}{5}$.
C. Add 7 to both sides of the equation, then multiply both sides by $\frac{5}{3}$.
D. Subtract 7 from both sides of the equation, then multiply both sides by $\frac{5}{3}$.

MA.7.S.6.2

5. Mr. Montoya's class planted 15 flowering plants in the school's courtyard. The histogram shows the heights of the plants after they were fully grown.

Mr. Montoya's Garden



Based on the histogram, which statement is TRUE?

- F. Most of the plants grew to a full height of less than 16 inches.
G. Most of the plants grew to a full height of more than 18 inches.
H. Fifty percent of the plants grew to a full height of 16 to 17 inches.
I. Twenty percent of the plants grew to a full height of 14 to 15 inches.

Name _____
 Teacher _____

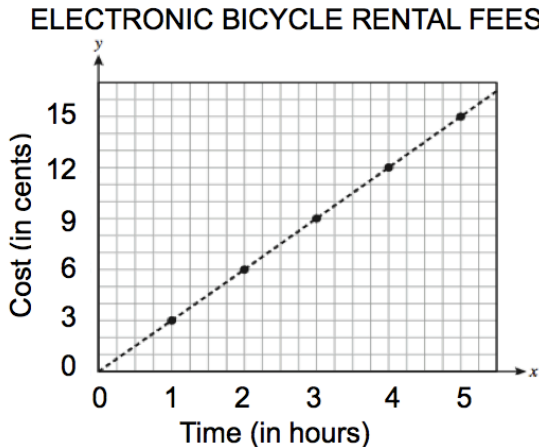
Math – 7th Grade
 Countdown Week 2

Date _____
 Period _____

DAY 6 #1	DAY 7 #1	DAY 8 #1	DAY 9 #1	DAY 10 #1

MA.7.A.1.4

1. Electronic bicycle lockers are public storage lockers designed specifically for the storage of bicycles in a transit station. These lockers can be rented for an annual fee. The graph below shows the cost of renting an electronic bicycle locker with the annual fee changed to an hourly rate.



Which of the following shows the rate for renting an electronic bicycle locker?

- F. 1 cent per 3 hours
G. 3 cents per 1 hour
H. 5 cents per 16 hours
I. 16 cents per 5 hours

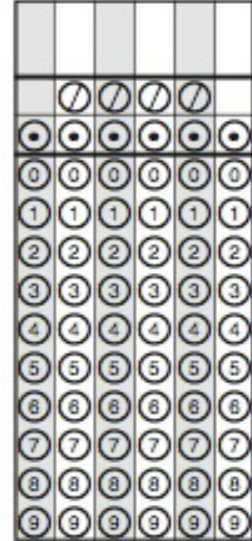
MA.7.A.1.5

2. Which of the following tables does NOT represent a direct variation between x and y ?

A.	x	3	6	12	24
	y	4	8	16	32
B.	x	5	8	11	14
	y	6	9	12	15
C.	x	2	6	8	10
	y	5	15	20	25
D.	x	1	3	9	27
	y	3	9	27	81

MA.7.A.1.6.

3. Dominic drove 324 miles from Salt Lake City, Utah, to Bryce Canyon National Park in 6 hours and 45 minutes. What was his average speed, in **miles per hour**?



MA.7.A.3.4

4. Which is equivalent to $-3(4x - 6) = 20$?

- F. $-12x - 6 = 20$
G. $-12x + 18 = 20$
H. $-12x - 6 = 60$
I. $-12x + 18 = 60$

MA.7.P.7.2

5. Joaquin has the set of cards shown below.

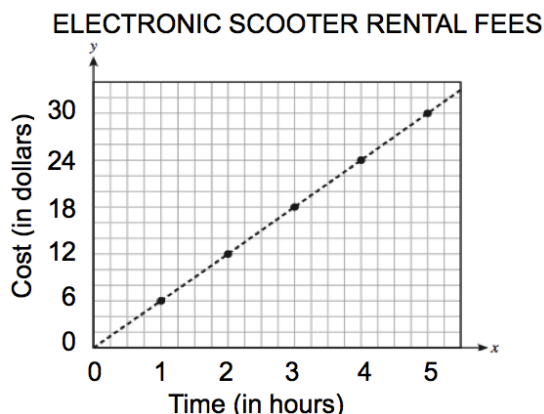


Joaquin will shuffle the cards, select one without looking, record the number of the card, and return the card to the set. He will repeat this process 50 times. Which is closest to the number of times he should expect to select a card with a number greater than 5?

- A. 6
B. 10
C. 19
D. 25

MA.7.A.1.4

1. Electronic scooters can now be rented for an hourly fee in a tourist town. The graph below shows the cost of renting an electronic scooter hourly to drive around and see the sights.



Which of the following shows the rate for renting an electronic scooter?

- F. 1 dollar per 3 hours
- G. 3 dollars per 1.5 hours
- H. 6 dollars per 1 hour
- I. 12 dollars per 2.5 hours

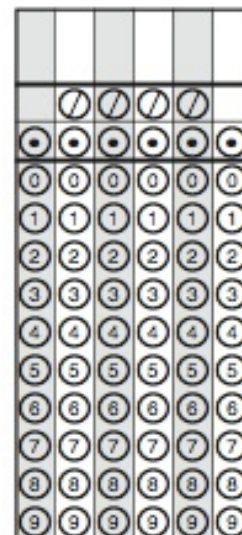
MA.7.A.1.5

2. Which of the following tables does NOT represent a direct variation between x and y

A.	x	3	9	12	15
	y	7	21	28	35
B.	x	5	10	20	40
	y	6	12	24	48
C.	x	3	9	12	15
	y	5	15	20	25
D.	x	1	3	5	7
	y	3	5	7	9

MA.7.A.1.6.

3. Sheila drove 212 miles from Ft. Lauderdale, FL to Disneyworld in Orlando, FL in 3 hours and 30 minutes. What was her average speed, in **miles per hour**? (Round to the nearest whole number)



MA.7.A.3.4

4. Which is equivalent to $-2(2x - 1) = 34$?
- F. $-4x - 1 = 34$
 - G. $-4x + 2 = 102$
 - H. $-4x - 1 = 102$
 - I. $-4x + 2 = 34$

MA.7.P.7.2

5. Joaquin has the set of cards shown below.

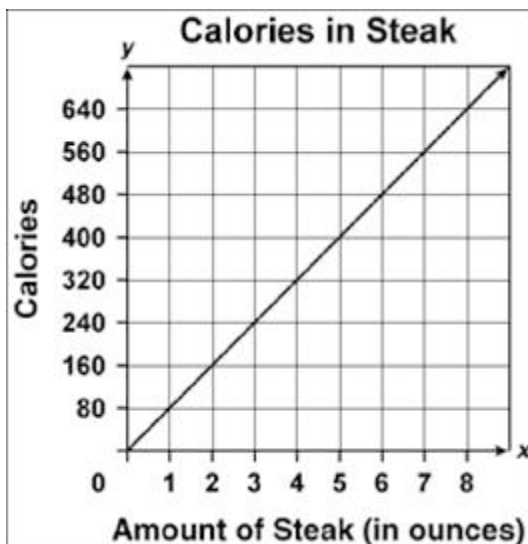


Joaquin will shuffle the cards, select one without looking, record the number of the card, and return the card to the set. He will repeat this process 40 times. Which is closest to the number of times he should expect to select a card with a number less than 6?

- A. 6
- B. 10
- C. 19
- D. 25

MA.7.A.1.4

1. The graph below shows the number of calories in different amounts of steak.



Which choice represents the correct rate for number of calories per ounce?

- F. 40 calories per ounce
- G. 80 calories per 2 ounces
- H. 100 calories per 1.5 ounces
- I. 120 calories per 1.5 ounces

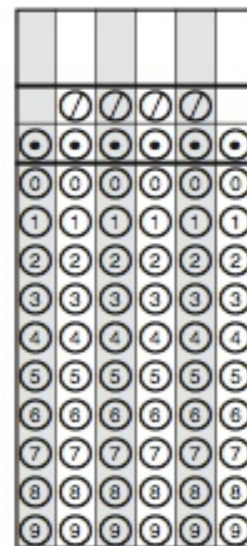
MA.7.A.1.5

2. Which of the following tables does NOT represent a direct variation between x and y ?

A.	x	3	6	9	12
	y	8	16	24	32
B.	x	5	10	20	40
	y	6	12	24	48
C.	x	2	6	8	10
	y	14	12	10	8
D.	x	1	2	3	4
	y	4	8	12	16

MA.7.A.1.6.

3. Samantha drove 660 miles from Miami, FL to Atlanta, GA to visit her relatives. She averaged 55 **miles per hour** for the entire trip. How many hours later did she arrive in Atlanta?



MA.7.A.3.4

4. Which is equivalent to $-3(2x - 1) = -39$?

- F. $-6x - 3 = -39$
- G. $-6x = 1 = 117$
- H. $-6x + 3 = -39$
- I. $-6x - 3 = 117$

MA.7.P.7.2

5. Joaquin has the set of cards shown below.



Joaquin will shuffle the cards, select one without looking, record the number of the card, and return the card to the set. He will repeat this process 30 times. Which is closest to the number of times he should expect to select a card with a prime number?

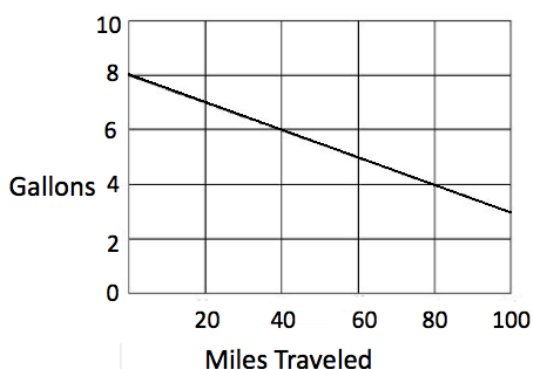
- A. 5
- B. 15
- C. 19
- D. 25

MA.7.A.1.4

1. Paul purchased a new economy car and plans to travel on a road trip. The graph below shows the number of gallons of gas his new car uses per mile traveled.



PAUL'S ROAD TRIP



Which choice represents the correct rate for the number of gallons used per miles traveled?

- F. 1 gallon per 20 miles
- G. 1 gallon per 40 miles
- H. 2.5 gallons per 40 miles
- I. 3 gallons per 80 miles

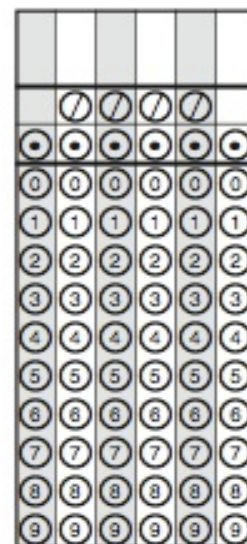
MA.7.A.1.5

2. Which of the following tables does NOT represent a direct variation between x and y ?

A.	x	3	6	9	12
	y	18	15	12	9
B.	x	2	6	18	54
	y	3	9	27	81
C.	x	3	6	9	12
	y	5	10	15	20
D.	x	5	10	15	20
	y	8	16	24	32

MA.7.A.1.6.

3. Paul's driving trip from Miami, FL to Charleston, SC took about 10 hours and 45 minutes. His average speed was 55 **miles per hour**. How many miles is it from Miami, FL to Charleston, SC? (Round to the nearest whole number)



MA.7.A.3.4

4. Which is equivalent to $4(5 - 3x) = 80$?

- F. $20 - 12x = 80$
- G. $20 + 12x = 80$
- H. $20 - 3x = 80$
- I. $20 - 12x = 320$

MA.7.P.7.2

5. Joaquin has the set of cards shown below.



Joaquin will shuffle the cards, select one without looking, record the number of the card, and return the card to the set. He will repeat this process 50 times. Which is closest to the number of times he should expect to select a card with a number greater than 6?

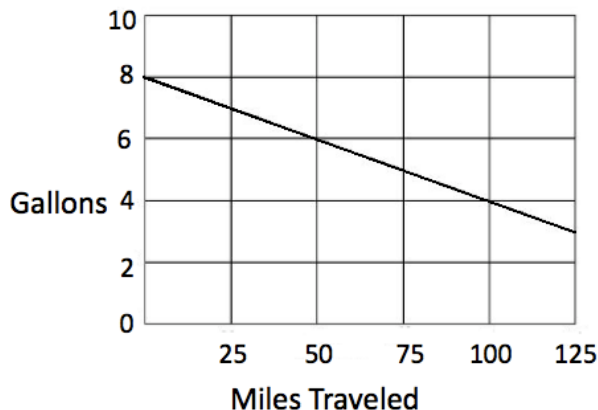
- A. 4
- B. 6
- C. 10
- D. 20

MA.7.A.1.4

1. Priscilla also purchased a new economy car and plans to travel on a road trip. The graph below shows the number of gallons of gas her new car uses per mile traveled.



PRISCILLA'S ROAD TRIP



Which choice represents the correct rate for the number of gallons used per miles traveled?

- F. 1 gallon per 20 miles
G. 1 gallon per 25 miles
H. 2.5 gallons per 60 miles
I. 3 gallons per 70 miles

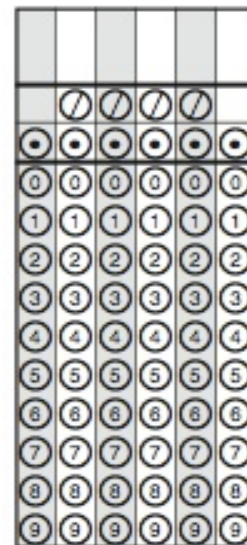
MA.7.A.1.5

2. Which of the following tables does NOT represent a direct variation between x and y ?

A.	x	1	2	4	8
	y	4	8	16	32
B.	x	2	4	6	8
	y	3	6	9	12
C.	x	4	8	12	16
	y	9	13	17	21
D.	x	5	15	45	135
	y	7	21	63	189

MA.7.A.1.6.

3. Dante drove 350 miles from Jacksonville, FL to Miami at an average speed of 56 **miles per hour**. How many hours did the trip take?



MA.7.A.3.4

4. Which is equivalent to $-6(x - 1) = 18$?

- F. $-6x - 1 = 18$
G. $-6x - 6 = -108$
H. $-6x + 6 = 18$
I. $-6x + 6 = 108$

MA.7.P.7.2

5. Joaquin has the set of cards shown below.

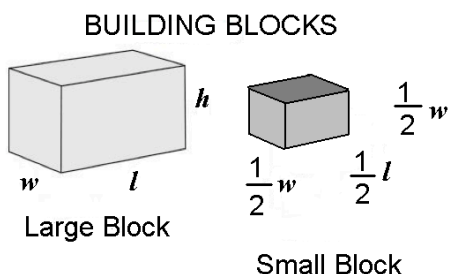
1 2 3 4 5 6 7 8 9 10

Joaquin will shuffle the cards, select one without looking, record the number of the card, and return the card to the set. He will repeat this process 100 times. Which is closest to the number of times he should expect to select a card with a number 3 or greater?

- A. 50
B. 80
C. 100
D. 200

MA.7.G.4.1

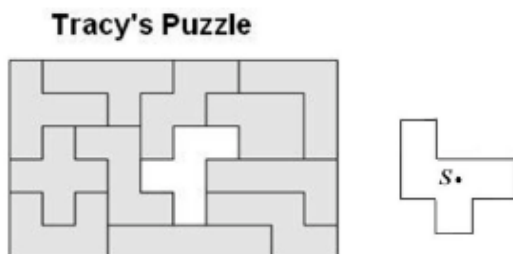
1. Jeff is building walls using the building blocks shown below. The dimensions of the small blocks are $\frac{1}{2}$ the size of the dimensions of the large blocks. Jeff's wall has a length (l) of 5 large blocks and a height (h) of 2 large blocks.



How many small blocks does Jeff need to build a wall with the same volume as the wall he made with large blocks?

MA.7.G.4.2

2. Tracy is playing a puzzle game on the computer. She has placed all the pieces in the puzzle except for one, as shown below.



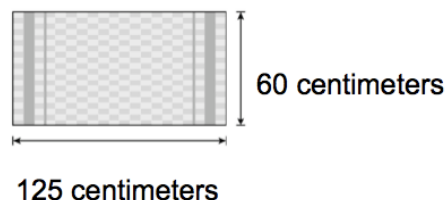
Tracy can complete the puzzle by performing two transformations on the remaining puzzle piece. Which two transformations should Tracy perform?

- A. a 90° clockwise rotation about point S, followed by a translation to the left
- B. a 90° counterclockwise rotation about point S, followed by a translation to the left
- C. a reflection across a vertical line, followed by a 90° clockwise rotation about point S
- D. a reflection across a vertical line, followed by a 90° counterclockwise rotation about point S

MA.7.G.4.4

3. Rebecca bought a rectangular throw blanket like the one shown below.

Rebecca's Throw Blanket

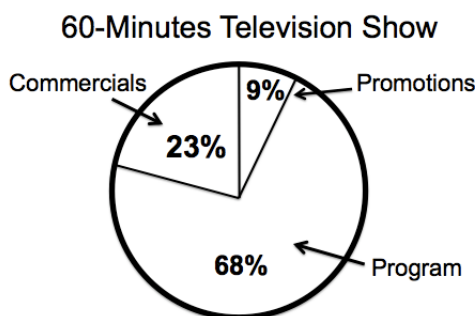


Which is closest to the dimensions of Rebecca's throw blanket?

- F. 50 inches by 24 inches
- G. 59 inches by 80 inches
- H. 75 inches by 40 inches
- I. 80 inches by 150 inches

MA.7.S.6.2

4. Television programs are separated into parts by commercials and network promotions. The circle graph below shows the percent of a 60-minute television show that is used for commercials, promotions, and the program itself.



Which is closest to the number of minutes used for commercials and promotions during that 60-minute television show?

- A. 5 B. 14 C. 19 D. 32

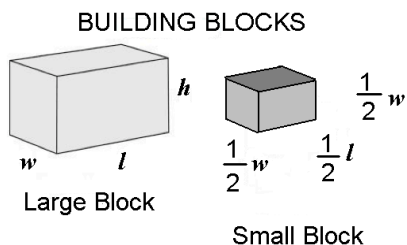
MA.7.P.7.1

5. The records of a sporting goods company show that 4 out of every 100 footballs manufactured have some defect. What is the probability that a football will **NOT** have a manufacturing defect?

- F. $\frac{1}{1}$ G. $\frac{1}{4}$ H. $\frac{1}{25}$ I. $\frac{24}{25}$

MA.7.G.4.1

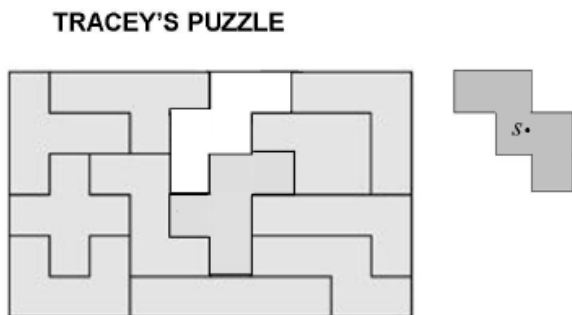
1. Jeff is building walls using the building blocks shown below. The dimensions of the small blocks are $\frac{1}{2}$ the size of the dimensions of the large blocks. Jeff's wall has a length (l) of 6 large blocks and a height (h) of 4 large blocks.



How many small blocks does Jeff need to build a wall with the same volume as the wall he made with large blocks?

MA.7.G.4.2

2. Tracy is playing a puzzle game on the computer. She has placed all the pieces in the puzzle except for one, as shown below.



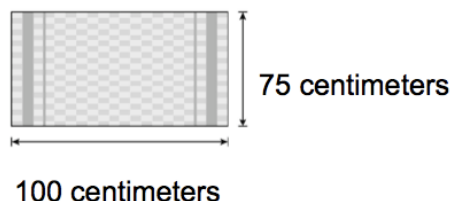
Tracy can complete the puzzle by performing two transformations on the remaining puzzle piece. Which two transformations should Tracy perform?

- A. a 90° counterclockwise rotation about point S, followed by a translation to the left
- B. a 90° counterclockwise rotation about point S, followed by a translation to the left
- C. a reflection across a vertical line, followed by a 90° clockwise rotation about point S
- D. a reflection across a vertical line, followed by a 90° counterclockwise rotation about point S

MA.7.G.4.4

3. Rebecca bought a rectangular throw blanket like the one shown below.

Rebecca's Throw Blanket



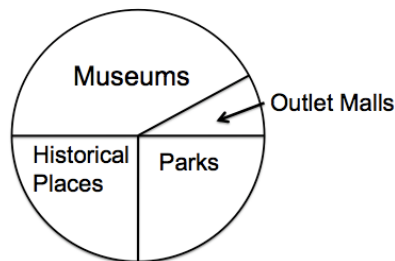
Which is closest to the dimensions of Rebecca's throw blanket?

- F. 49 inches by 60 inches
- G. 40 inches by 30 inches
- H. 60 inches by 125 inches
- I. 49 inches by 24 inches

MA.7.S.6.2

4. A magazine for people over 50 years old asked its readers what type of tourist attraction interested them most.

TOURIST ATTRACTIONS



If 100 readers responded, approximately how many chose *museums* as their favorite attraction?

- A. 35 B. 45 C. 50 D. 90

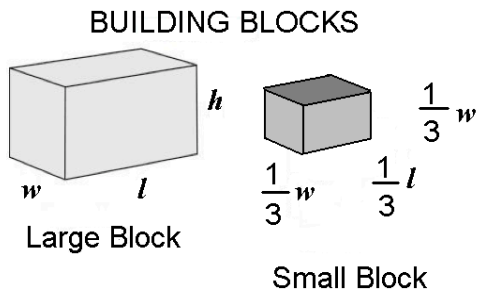
MA.7.P.7.1

5. The records of a sporting goods company show that 5 out of every 100 footballs manufactured have some defect. What is the probability that a football will have a manufacturing defect?

- F. $\frac{1}{20}$ G. $\frac{1}{10}$ H. $\frac{1}{5}$ I. $\frac{1}{2}$

MA.7.G.4.1

1. Jeff is building walls using the building blocks shown below. The dimensions of the small blocks are $\frac{1}{3}$ the size of the dimensions of the large blocks. Jeff's wall has a length (l) of 5 large blocks and a height (h) of 2 large blocks.

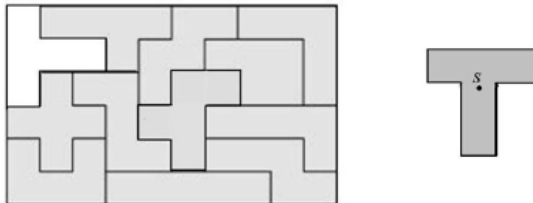


How many small blocks does Jeff need to build a wall with the same volume as the wall he made with large blocks?

MA.7.G.4.2

2. Tracy is playing a puzzle game on the computer. She has placed all the pieces in the puzzle except for one, as shown below.

TRACEY'S PUZZLE



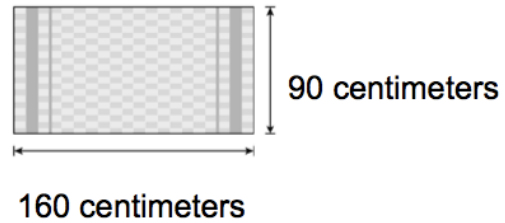
Tracy can complete the puzzle by performing transformations on the remaining puzzle piece. Which transformations should Tracy perform?

- A. a 90° clockwise rotation about point S, followed by a translation to the left.
- B. a 180° counterclockwise rotation about point S, followed by a translation to the left.
- C. a 90° counterclockwise rotation about point S, followed by a translation to the left and then a vertical translation.
- D. a 180° counterclockwise rotation about point S, followed by a reflection across a horizontal line.

MA.7.G.4.4

3. Rebecca bought a rectangular throw blanket like the one shown below.

Rebecca's Throw Blanket



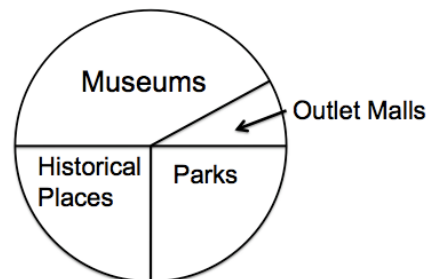
Which is closest to the dimensions of Rebecca's throw blanket?

- F. 100 inches by 75 inches
- G. 50 inches by 37 inches
- H. 39 inches by 30 inches
- I. 35 inches by 65 inches

MA.7.S.6.2

4. A magazine for people over 50 years old asked its readers what type of tourist attraction interested them most.

TOURIST ATTRACTIONS



If 160 readers responded, approximately how many chose *museums* as their favorite attraction?

- A. 36 B. 55 C. 72 D. 115

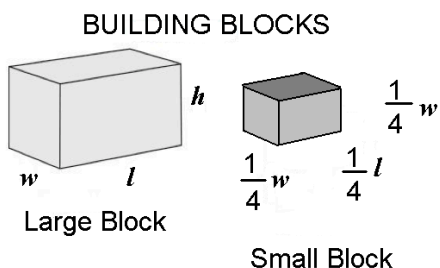
MA.7.P.7.1

5. The records of a sporting goods company show that 15 out of every 200 footballs manufactured have some defect. What is the probability that a football will **NOT** have a manufacturing defect?

- F. $\frac{3}{40}$ G. $\frac{37}{40}$ H. $\frac{15}{40}$ I. $\frac{15}{50}$

MA.7.G.4.1

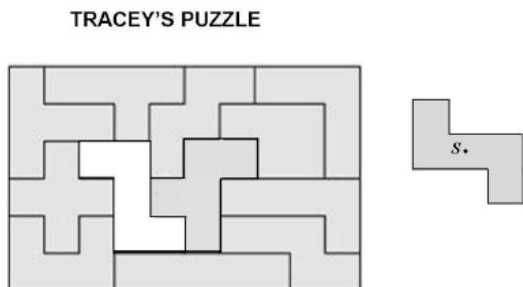
1. Jeff is building walls using the building blocks shown below. The dimensions of the small blocks are $\frac{1}{4}$ the size of the dimensions of the large blocks. Jeff's wall has a length (l) of 4 large blocks and a height (h) of 3 large blocks.



How many small blocks does Jeff need to build a wall with the same volume as the wall he made with large blocks?

MA.7.G.4.2

2. Tracy is playing a puzzle game on the computer. She has placed all the pieces in the puzzle except for one, as shown below.



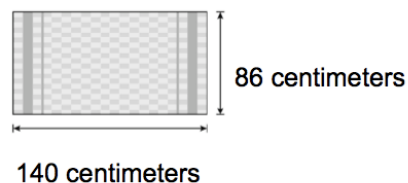
Tracy can complete the puzzle by performing transformations on the remaining puzzle piece. Which transformations should Tracy perform?

- a 90° clockwise rotation about point S, followed by a translation to the left.
- a 90° counterclockwise rotation about point S, followed by a translation to the left.
- a reflection across a horizontal line, followed by a 180° counterclockwise rotation about point S.
- a reflection across a vertical line, followed by a 90° clockwise rotation about point S, followed by a translation to the left.

MA.7.G.4.4

3. Rebecca bought a rectangular throw blanket like the one shown below.

Rebecca's Throw Blanket



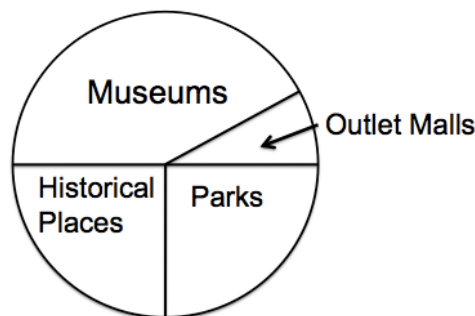
Which is closest to the dimensions of Rebecca's throw blanket?

- 55 inches by 35 inches
- 63 inches by 45 inches
- 80 inches by 45 inches
- 90 inches by 160 inches

MA.7.S.6.2

4. A magazine for people over 50 years old asked its readers what type of tourist attraction interested them most.

TOURIST ATTRACTIONS



If 260 readers responded, approximately how many chose *historical places* as their favorite attraction?

- 25
- 65
- 75
- 130

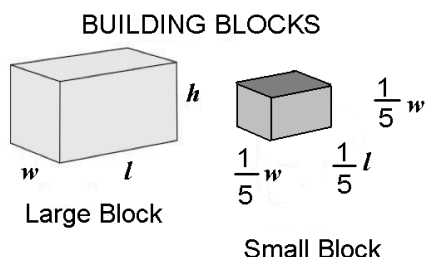
MA.7.P.7.1

5. The records of a sporting goods company show that 5 out of every 75 footballs manufactured have some defect. What is the probability that a football will **NOT** have a manufacturing defect?

- $\frac{1}{75}$
- $\frac{1}{15}$
- $\frac{14}{15}$
- $\frac{1}{25}$

MA.7.G.4.1

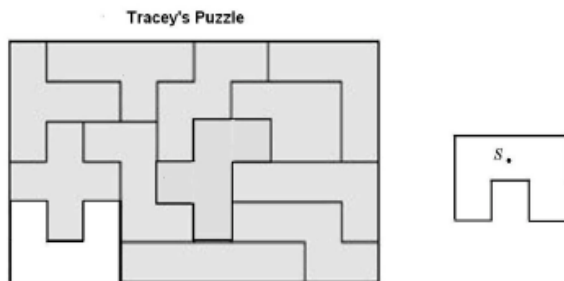
1. Jeff is building walls using the building blocks shown below. The dimensions of the small blocks are $\frac{1}{5}$ the size of the dimensions of the large blocks. Jeff's wall has a length (l) of 6 large blocks and a height (h) of 3 large blocks.



How many small blocks does Jeff need to build a wall with the same volume as the wall he made with large blocks?

MA.7.G.4.2

2. Tracy is playing a puzzle game on the computer. She has placed all the pieces in the puzzle except for one, as shown below.



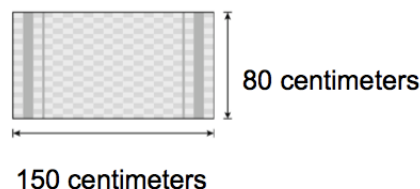
Tracy can complete the puzzle by performing two transformations on the remaining puzzle piece. Which two transformations should Tracy perform?

- a reflection across a vertical line, followed by a translation to the left.
- a reflection across a horizontal line, followed by a translation to the left.
- a 90° clockwise rotation about point S, followed by a translation to the left
- a 90° counterclockwise rotation about point S, followed by a translation to the left.

MA.7.G.4.4

3. Rebecca bought a rectangular throw blanket like the one shown below.

Rebecca's Throw Blanket



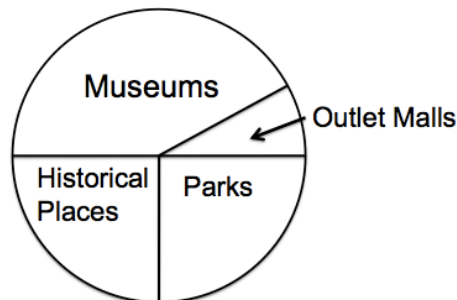
Which is closest to the dimensions of Rebecca's throw blanket?

- 55 inches by 86 inches
- 70 inches by 43 inches
- 86 inches by 140 inches
- 58 inches by 30 inches

MA.7.S.6.2

4. A magazine for people over 50 years old asked its readers what type of tourist attraction interested them most.

TOURIST ATTRACTIONS



If 150 readers responded, approximately how many chose *outlet malls* as their favorite attraction?

- 7
- 20
- 25
- 75

MA.7.P.7.1

5. The records of a sporting goods company show that 6 out of every 100 footballs manufactured have some defect. What is the probability that a football will have a manufacturing defect?

- $\frac{1}{5}$
- $\frac{1}{6}$
- $\frac{3}{50}$
- $\frac{47}{50}$

Name _____
 Teacher _____

Math – 7th Grade
 Countdown Week 4

Date _____
 Period _____

DAY 16 #1	DAY 17 #1	DAY 18 #1	DAY 19 #1	DAY 20 #1

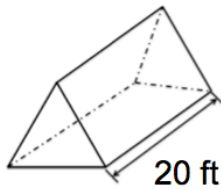
MA.7.A.1.1 MC

1. If x and y are related, which of the following is true for x and y to be proportional?
- A. If x is squared, then y is squared.
 - B. If 2 is added to x , then 2 is added to y .
 - C. If x is multiplied by 2, then y is also multiplied by 2.
 - D. If 2 is subtracted from x , then 2 is also subtracted from y .

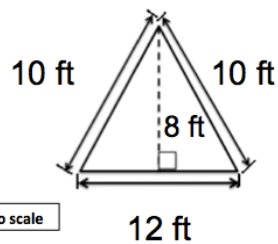
MA.7.G.2.1 GR

2. Tino designed a tent in the shape of a triangular prism. Each face of the tent, including the bottom, will be made from canvas. The length of the tent and one triangular face with dimensions, in feet (ft), are shown below.

Tino's Tent Design



Dimensions of Triangular Face

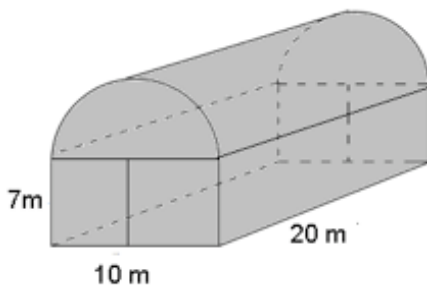


not drawn to scale

What is the total surface area, in square feet, of the tent Tino designed?

MA.7.G.2.2 GR

3. The Rodriguez family owns a farm in Miami-Dade County. They are constructing a greenhouse that is made up of two shapes: half of a rectangular prism and half of a right circular cylinder. The greenhouse will be used to house the tomato seedlings until they are large enough to be transplanted in the surrounding farmland.

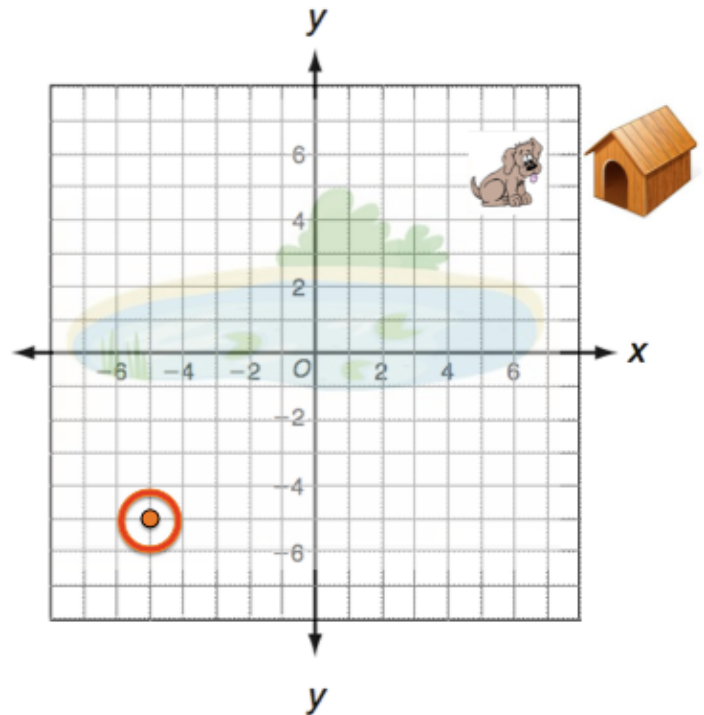


Greenhouse Plans

What is the volume of the greenhouse they plan to build? (Round to the nearest whole number)

MA.7.G.4.3 MC

4. Perry discovered that his dog, Rufus, was missing. He and his friends searched the entire neighborhood looking for him. They finally found Rufus at the location shown by the dot within the circle. What are the coordinates for his new location?



- F. (5, 5)
- G. (5, -5)
- H. (-5, 5)
- I. (-5, -5)

MA.7.P.7.2 MC

5. When a coin is flipped, there are two possible outcomes, heads or tails. Paula flips a coin two times. What is the probability that she will get tails both times?

- A. $\frac{1}{2}$
- B. $\frac{1}{4}$
- C. $\frac{1}{8}$
- D. $\frac{1}{16}$

MA.7.A.1.1 MC

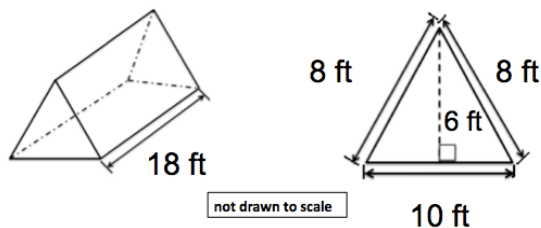
1. If x and y are related, which of the following is true for x and y to be proportional?
- A. If 4 is added to x , then 4 is added to y .
 - B. If x is divided by 4, then y is also divided by 4.
 - C. If x is squared, then y is squared.
 - D. If 4 is subtracted from x , then 4 is also subtracted from y .

MA.7.G.2.1 MC

2. Tino designed a tent in the shape of a triangular prism. Each face of the tent, including the bottom, will be made from canvas. The length of the tent and one triangular face with dimensions, in feet (ft), are shown below.

Tino's Tent Design

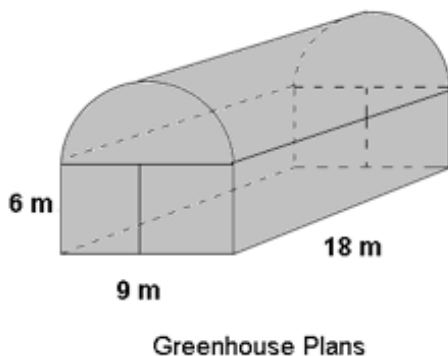
Dimensions of Triangular Face



What is the total surface area, in square feet, of the tent Tino designed?

MA.7.G.2.2 GR

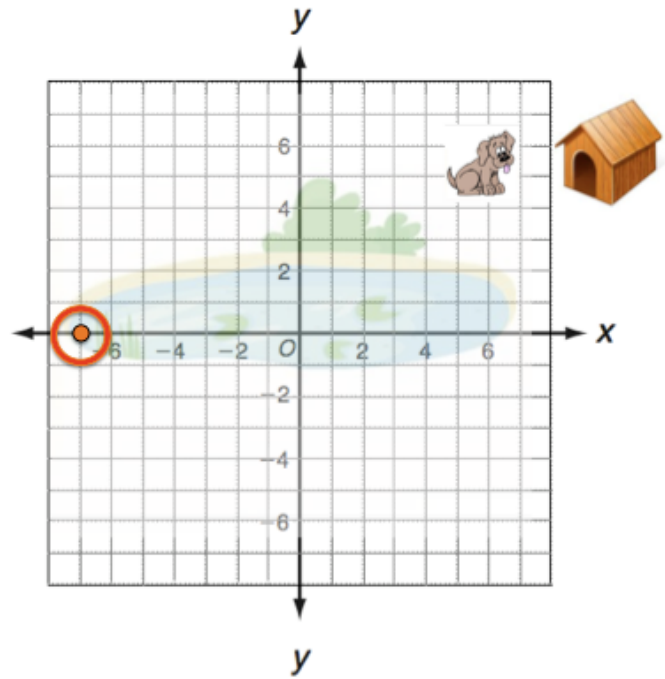
3. The Rodriguez family owns a farm in Miami-Dade County. They are constructing a greenhouse that is made up of two shapes: half of a rectangular prism and half of a right circular cylinder. The greenhouse will be used to house the tomato seedlings until they are large enough to be transplanted in the surrounding farmland.



What is the volume of the greenhouse they plan to build? (Round to the nearest whole number)

MA.7.G.4.3 MC

4. Perry discovered that his dog, Rufus, was missing. He and his friends searched the entire neighborhood looking for him. They finally found Rufus at the location shown by the dot within the circle. What are the coordinates for his new location?



- F. (0, -7)
- G. (-7, 1)
- H. (-7, 0)
- I. (-7, -1)

MA.7. P.7.2 MC

5. When a coin is flipped, there are two possible outcomes, heads or tails. Paula flips a coin four times. What is the probability that she will get tails all four times?

- A. $\frac{1}{2}$
- B. $\frac{1}{4}$
- C. $\frac{1}{8}$
- D. $\frac{1}{16}$

MA.7.A.1.1 MC

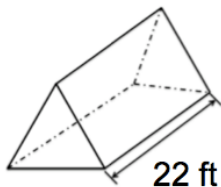
1. Grace and Jamal each bought notebooks for school. Grace bought 3 notebooks for \$3.90 while Jamal bought 2 notebooks for \$2.20. What was the unit price of each student's notebooks?

- A. Grace: \$3.90; Jamal: \$2.20
B. Grace: \$1.30; Jamal: \$1.10
C. Grace: \$1.10; Jamal: \$1.30
D. Grace: \$3.00; Jamal: \$2.00

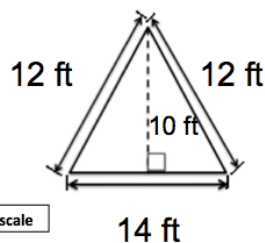
MA.7.G.2.1 MC

2. Tino designed a tent in the shape of a triangular prism. Each face of the tent, including the bottom, will be made from canvas. The length of the tent and one triangular face with dimensions, in feet (ft), are shown below.

Tino's Tent Design



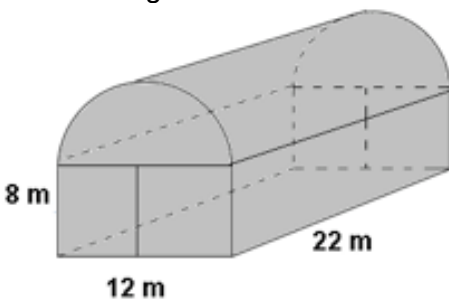
Dimensions of Triangular Face



What is the total surface area, in square feet, of the tent Tino designed?

MA.7.G.2.2 GR

3. The Rodriguez family owns a farm in Miami-Dade County. They are constructing a greenhouse that is made up of two shapes: half of a rectangular prism and half of a right circular cylinder. The greenhouse will be used to house the tomato seedlings until they are large enough to be transplanted in the surrounding farmland.

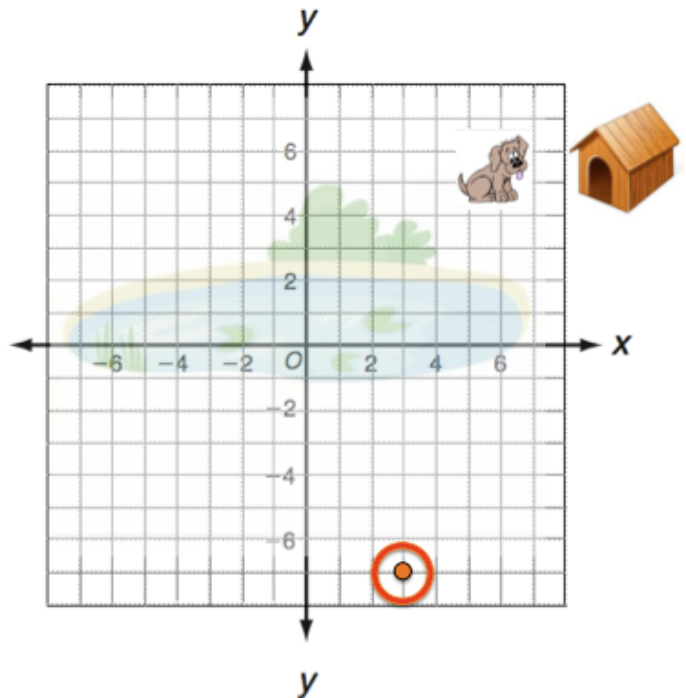


Greenhouse Plans

What is the volume of the greenhouse they plan to build? (Round to the nearest whole number)

MA.7.G.4.3 MC

4. Perry discovered that his dog, Rufus, was missing. He and his friends searched the entire neighborhood looking for him. They finally found Rufus at the location shown by the dot within the circle. What are the coordinates for his new location?



- F. (3, 7) H. (3, -7)
G. (-7, 3) I. (-3, -7)

MA.7.P.7.2 MC

5. Paula's mother bought and brought home a bag of assorted cookies. In the bag, there were 2 sugar cookies, 3 chocolate chip cookies, and 2 peanut butter cookies. Paula reaches in the bag without looking, and pulls out 1 chocolate chip cookie. What is the probability that the second cookie she selects the same way will be a chocolate chip cookie?

- A. $\frac{3}{7}$ C. $\frac{2}{3}$
B. $\frac{2}{7}$ D. $\frac{1}{3}$

MA.7.A.1.1 MC

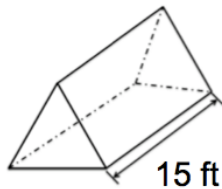
1. Marty has saved \$72. He spent \$8 on a video rental. Write a ratio as a fraction in simplest form to represent what portion of his savings he has left.

- A. $\frac{64}{72}$ C. $\frac{1}{9}$
B. $\frac{8}{72}$ D. $\frac{8}{9}$

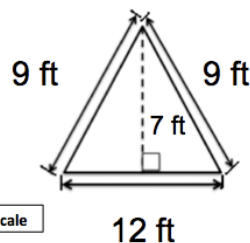
MA.7.G.2.1 MC

2. Tino designed a tent in the shape of a triangular prism. Each face of the tent, including the bottom, will be made from canvas. The length of the tent and one triangular face with dimensions, in feet (ft), are shown below.

Tino's Tent Design



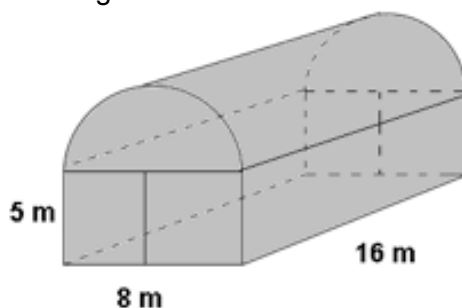
Dimensions of Triangular Face



What is the total surface area, in square feet, of the tent Tino designed?

MA.7.G.2.2 GR

3. The Rodriguez family owns a farm in Miami-Dade County. They are constructing a greenhouse that is made up of two shapes: half of a rectangular prism and half of a right circular cylinder. The greenhouse will be used to house the tomato seedlings until they are large enough to be transplanted in the surrounding farmland.

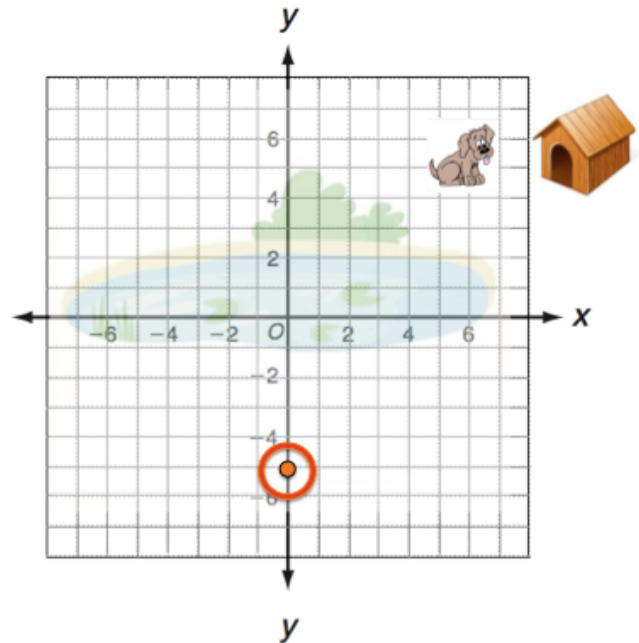


Greenhouse Plans

What is the volume of the greenhouse they plan to build? (Round to the nearest whole number)

MA.7.G.4.3 MC

4. Perry discovered that his dog, Rufus, was missing. He and his friends searched the entire neighborhood looking for him. They finally found Rufus at the location shown by the dot within the circle. What are the coordinates for his new location?



- F. (0, -5) H. (5, 0)
G. (-5, 0) I. (0, 5)

MA.7.P.7.2 MC

5. Paula's mother bought and brought home a bag of assorted cookies. In the bag, there were: 4 sugar cookies, 2 chocolate chip cookies, and 6 peanut butter cookies. Paula reaches in the bag without looking, and pulls out 1 peanut butter cookie. What is the probability that the second cookie she selects the same way will be a peanut butter cookie?

- A. $\frac{1}{2}$ C. $\frac{6}{11}$
B. $\frac{5}{12}$ D. $\frac{5}{11}$

MA.7.A.1.1 MC

1. Solve for x .

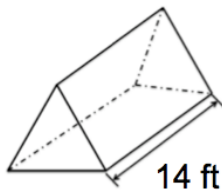
$$\frac{4}{21} = \frac{x}{168}$$

- A. 8
B. 32
C. 84
D. 882

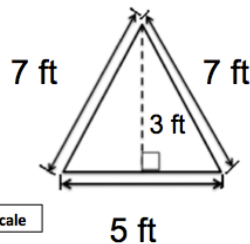
MA.7.G.2.1 MC

2. Tino designed a tent in the shape of a triangular prism. Each face of the tent, including the bottom, will be made from canvas. The length of the tent and one triangular face with dimensions, in feet (ft), are shown below.

Tino's Tent Design



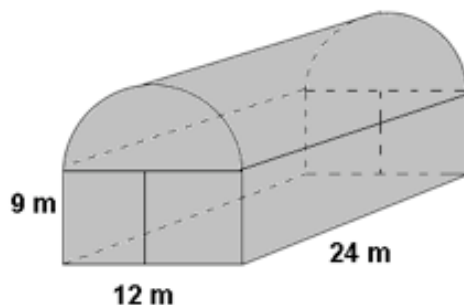
Dimensions of Triangular Face



What is the total surface area, in square feet, of the tent Tino designed?

MA.7.G.2.2 GR

3. The Rodriguez family owns a farm in Miami-Dade County. They are constructing a greenhouse that is made up of two shapes: half of a rectangular prism and half of a right circular cylinder. The greenhouse will be used to house the tomato seedlings until they are large enough to be transplanted in the surrounding farmland.

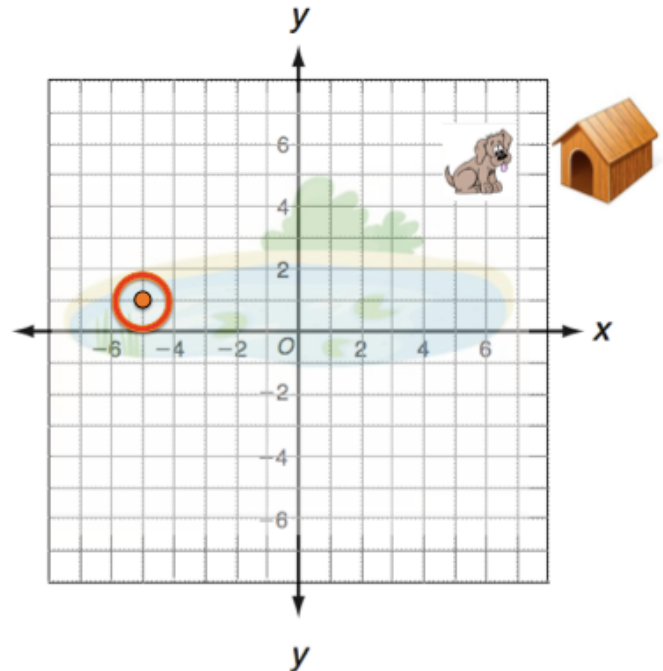


Greenhouse Plans

What is the volume of the greenhouse they plan to build? (Round to the nearest whole number)

MA.7.G.4.3 MC

4. Perry discovered that his dog, Rufus, was missing. He and his friends searched the entire neighborhood looking for him. They finally found Rufus at the location shown by the dot within the circle. What are the coordinates for his new location?



- F. (-5, -1)
G. (-5, 1)
H. (5, -1)
I. (-1, 5)

MA.7. P.7.2 MC

5. A spinner is numbered from 1 through 4. A coin has two possible outcomes, heads or tails. If Paula spins the spinner and flips the coin, what is the probability that Paula will get an even number on the spinner and tails on the coin?

- A. $\frac{1}{2}$
B. $\frac{1}{3}$
C. $\frac{1}{4}$
D. $\frac{1}{8}$

Name _____
Teacher _____

Math – 7th Grade
Countdown Week 5

Date _____
Period _____

<p>DAY 21 #2</p>	<p>DAY 21 #3</p>	<p>DAY 22 #2</p>	<p>DAY 22 #3</p>	<p>DAY 23 #2</p>
<p>DAY 23 #3</p>	<p>DAY 24 #2</p>	<p>DAY 24 #3</p>	<p>DAY 25 #2</p>	<p>DAY 25 #3</p>

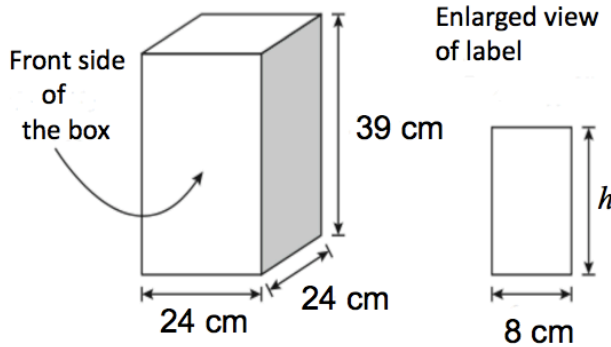
MA.7.A.1.2.

1. In August, Music Maze priced all the compact discs (CDs) at \$10. In October, these same CDs were discounted 50%, and in December they were reduced an additional 25%. What was the price of one CD after both discounts? (Round to the nearest hundredth's place if needed)

MA.7.A.1.3

2. Ramsey is making a label to fit on the front side of the rectangular prism box with a height of 39 centimeters (cm).

Ramsey's Box



Ramsey wants the label to be similar to the front side of the box. If the width of the label is 8 cm, what must be the height, in centimeters, of the label?

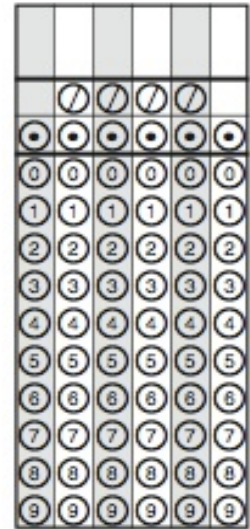
MA.7.G.4.1

3. Toni has a rectangular vegetable garden that measures 12 feet by 18 feet. She wants to reduce the area of her garden. If Toni reduces the dimensions of her garden to 12 feet by 9 feet, how will the area of the new garden compare to the area of the old garden?

- A. The area will be one-half as large.
- B. The area will be two-thirds as large.
- C. The area will be one-fourth as large.
- D. The area will be three-fourths as large.

MA.7.G.4.4

4. Melanie is making punch for the school dance. The recipe calls for 6 cups of juice for each of the 8 punch bowls. How many gallons of juice does she need?



MA.7.S.6.1

5. Mei was asked to determine how popular white grapefruit juice is compared to pink grapefruit juice. She surveyed 10 customers at each of 5 different grocery stores.

Grapefruit Survey

Store	Pink Grapefruit	White Grapefruit
A	7	3
B	4	6
C	8	2
D	6	4
E	5	5

Based on the results in the table above, what conclusion should Mei make?

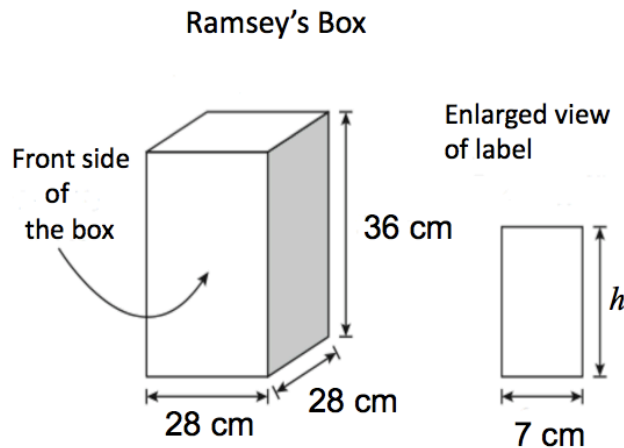
- F. Most of the stores surveyed showed that white grapefruit juice is preferred.
- G. The stores surveyed showed that most people do not like grapefruit juice.
- H. Most of the stores surveyed showed that pink grapefruit juice is preferred.
- I. The stores surveyed showed that both types are equally popular.

MA.7.A.1.2.

1. In August, Music Maze priced all the compact discs (CDs) at \$10. In October, these same CDs were discounted 40%, and in December they were reduced an additional 20%. What was the price of one CD after both discounts? (Round to the nearest hundredth's place if needed).

MA.7.A.1.3

2. Ramsey is making a label to fit on the front side of the rectangular prism box with a height of 36 centimeters (cm).



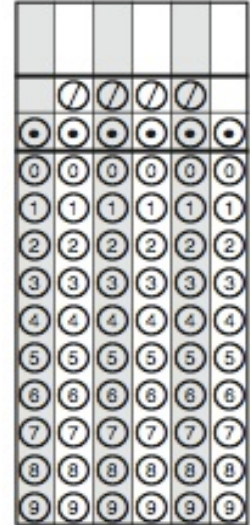
Ramsey wants the label to be similar to the front side of the box. If the width of the label is 7 cm, what must be the height, in centimeters, of the label?

MA.7.G.4.1

3. Toni has a rectangular vegetable garden that measures 20 feet by 16 feet. She wants to reduce the area of her garden. If Toni reduces the dimensions of her garden to 20 feet by 12 feet, how will the area of the new garden compare to the area of the old garden?
- A. The area will be one-half as large.
B. The area will be two-thirds as large.
C. The area will be one-fourth as large.
D. The area will be three-fourths as large.

MA.7.G.4.4

4. Melanie is making punch for the school dance. The recipe calls for 5 cups of juice for each of the 8 punch bowls. How many gallons of juice does she need?



MA.7.S.6.1

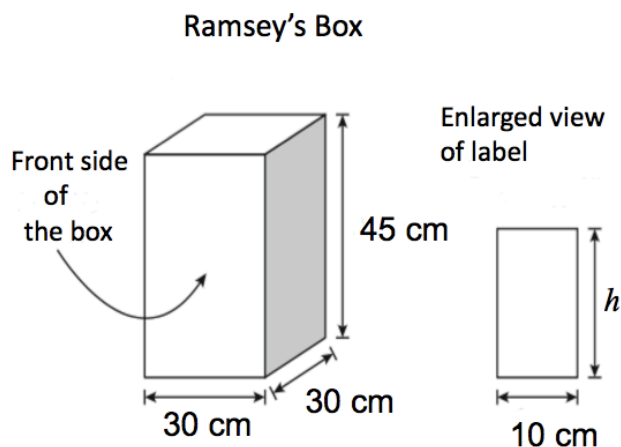
5. A principal is deciding whether to add a photography class to the arts program at a school. The decision will be based on a survey of a sample of students attending the school. Which technique will provide the principal with a random selection of the school's students?
- F. surveying every student in an art class
G. surveying every 10th student entering the school one morning
H. surveying the first 30 people to enter the cafeteria at lunchtime
I. surveying the students in the physical education classes one afternoon

MA.7.A.1.2.

1. In August, Music Maze priced all the compact discs (CDs) at \$15. In October, these same CDs were discounted 50%, and in December they were reduced an additional 25%. What was the price of one CD after both discounts? (Round to the nearest hundredth's place if needed)

MA.7.A.1.3

2. Ramsey is making a label to fit on the front side of the rectangular prism box with a height of 45 centimeters (cm).



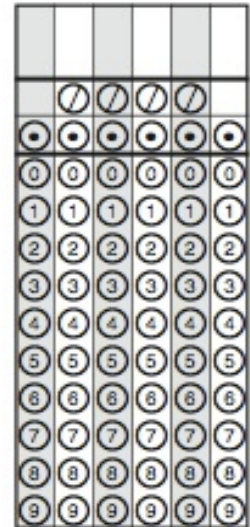
Ramsey wants the label to be similar to the front side of the box. If the width of the label is 10 cm, what must be the height, in centimeters, of the label?

MA.7.G.4.1

3. Toni has a rectangular vegetable garden that measures 18 feet by 16 feet. She wants to reduce the area of her garden. If Toni reduces the dimensions of her garden to 18 feet by 4 feet, how will the area of the new garden compare to the area of the old garden?
- A. The area will be one-half as large.
 - B. The area will be two-thirds as large.
 - C. The area will be one-fourth as large.
 - D. The area will be three-fourths as large.

MA.7.G.4.4

4. Melanie is making punch for the school dance. The recipe calls for 9 cups of juice for each of the 10 punch bowls. How many gallons of juice does she need?



MA.7.S.6.1

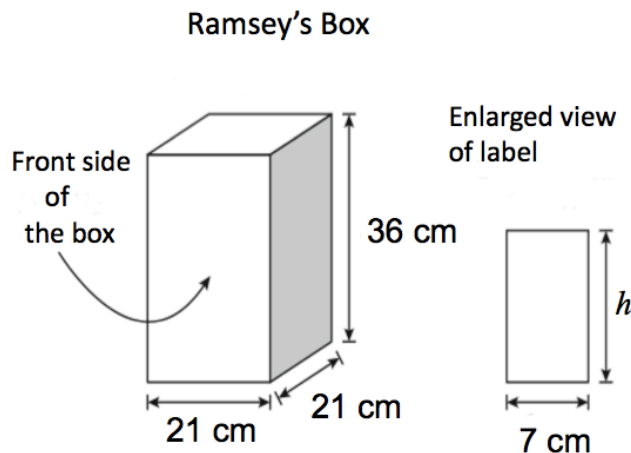
5. Terri wants to estimate the average weekly allowance for the students in her middle school by using a survey. In order to obtain a fair and representative sample, which sampling method should Terri use?
- F. Sample all the students in each of her classes.
 - G. Sample two randomly chosen students from each homeroom.
 - H. Sample the members of the girls' and boys' basketball teams.
 - I. Sample a random selection of students who volunteer to participate in her survey.

MA.7.A.1.2.

1. In August, Music Maze priced all the compact discs (CDs) at \$16. In October, these same CDs were discounted 40%, and in December they were reduced an additional 20%. What was the price of one CD after both discounts?

MA.7.A.1.3

2. Ramsey is making a label to fit on the front side of the rectangular prism box with a height of 36 centimeters (cm).



Ramsey wants the label to be similar to the front side of the box. If the width of the label is 7 cm, what must be the height, in centimeters, of the label?

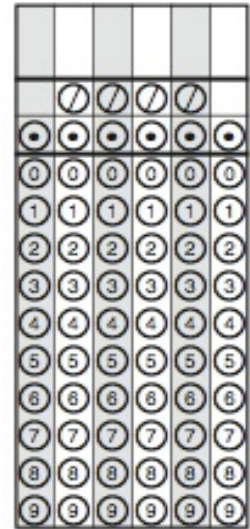
MA.7.G.4.1

3. Toni has a rectangular vegetable garden that measures 16 feet by 9 feet. She wants to reduce the area of her garden. If Toni reduces the dimensions of her garden to 16 feet by 6 feet, how will the area of the new garden compare to the area of the old garden?

- A. The area will be one-half as large.
- B. The area will be two-thirds as large.
- C. The area will be one-fourth as large.
- D. The area will be three-fourths as large.

MA.7.G.4.4

4. Melanie is making punch for the school dance. The recipe calls for $5\frac{1}{2}$ cups of juice for each of the 12 punch bowls. How many gallons of juice does she need?



MA.7.S.6.1

5. The table below lists the populations of California (CA) and New York (NY) in different years.

Population (in millions)		
Year	CA	NY
1950	10.6	14.8
1960	15.7	16.8
1970	20.0	18.2
1980	23.7	17.6
1990	29.8	18.0

Which prediction is BEST supported by the data shown?

- F. The population of California decreased steadily after 1990.
- G. New York will always have a greater population than California.
- H. The population of New York will not be greater than 18.2 million again.
- I. The population of California will increase at a faster rate than the population of New York.

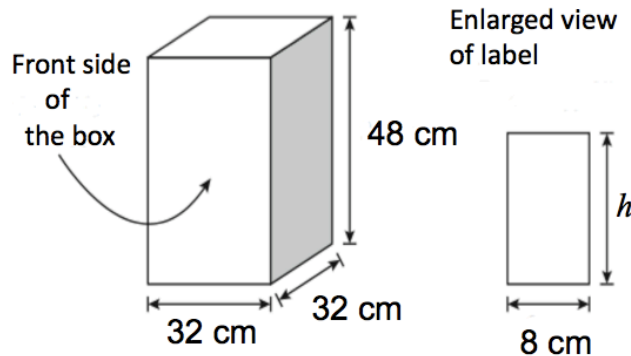
MA.7.A.1.2.

1. In August, Music Maze priced all the compact discs (CDs) at \$12. In October, these same CDs were discounted 30%, and in December they were reduced an additional 20%. What was the price of one CD after both discounts?

MA.7.A.1.3

2. Ramsey is making a label to fit on the front side of the rectangular prism box with a height of 48 centimeters (cm).

Ramsey's Box



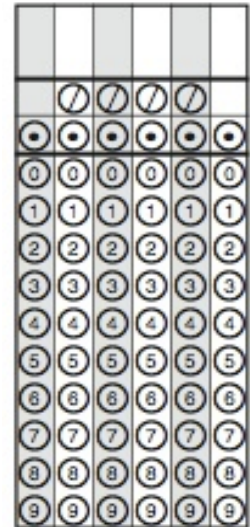
Ramsey wants the label to be similar to the front side of the box. If the width of the label is 8 cm, what must be the height, in centimeters, of the label?

MA.7.G.4.1

3. Toni has a rectangular vegetable garden that measures 15 feet by 12 feet. She wants to reduce the area of her garden. If Toni reduces the dimensions of her garden to 15 feet by 8 feet, how will the area of the new garden compare to the area of the old garden?
- A. The area will be one-half as large.
 - B. The area will be two-thirds as large.
 - C. The area will be one-fourth as large.
 - D. The area will be three-fourths as large.

MA.7.G.4.4

4. Melanie is planning to serve punch at the school dance. She plans to serve at least 2 cups of punch to each of the 80 students that will attend. How many gallons of punch will she need to purchase?



MA.7.S.6.1

5. A coin is considered a fair coin if it has an equal probability of turning up heads or tails when tossed. Hadley tosses a coin 20 times and the results are 15 heads and 5 tails. She concludes that the coin is not a fair coin. Which statement BEST explains why Hadley's conclusion might be wrong?
- F. She used a sample size that was too small.
 - G. She used an even number of trials instead of an odd number.
 - H. She tossed the coin herself instead of having someone else do it.
 - I. She tossed a single coin 20 times, instead of 20 similar coins, one time each, to ensure randomness.

Name _____
Teacher _____

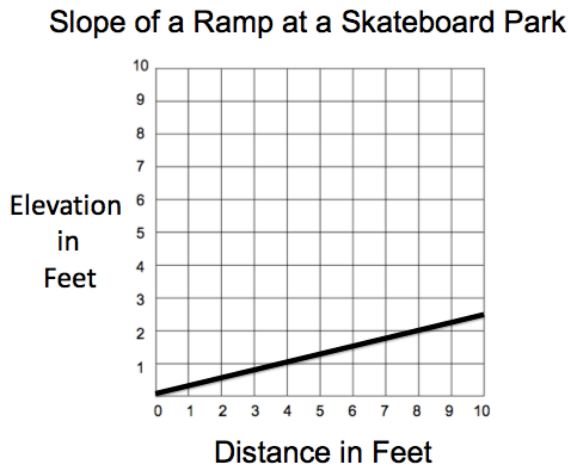
Math – 7th Grade
Countdown

Date _____
Period _____

DAY 26 #1	DAY 26 #2	DAY 27 #1	DAY 27 #2	DAY 28 #1	DAY 28 #2	DAY 29 #1
DAY 29 #2	DAY 30 #1	DAY 30 #2				

MA.7.A.1.4

1. The graph below shows the slope of a ramp at a skateboard park.



The ramp is 8 feet long and 2 feet high. Which of the following shows the slope of the ramp?

- A. 4 C. $\frac{1}{4}$
B. $\frac{3}{8}$ D. $\frac{1}{8}$

MA.7.A.1.5

2. Which situation represents an inverse variation?

- F. Earning \$9.00 an hour and working for 10 hours.
G. Exercising for 60 minutes and burning 3 calories per minute.
H. Driving a number of miles slowly and then speeding up to get to your destination in less time.
I. Studying every night for a test and the test score after taking the test.

MA.7.A.1.6

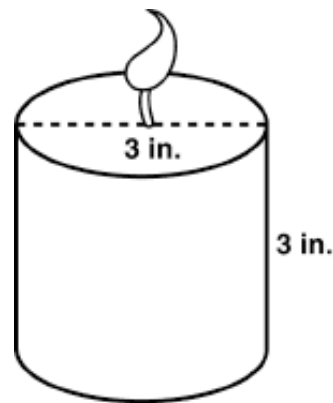
3. Dale and his family are planning to fly from Seattle to Miami. The direct flight is 5322 kilometers. Dale drew a line segment on a U.S. map from Seattle to Miami to show his younger sister the flight distance between the two cities.

If the scale on the map shows that 2 centimeters represents 600 kilometers, what is the length of the line segment Dale drew on the map from one city to the next?

- A. 4.44 cm C. 10.87 cm
B. 8.87 cm D. 17.74 cm

MA.7.G.2.1

4. A cylindrical candle has a diameter of 3 inches and a height of 3 inches, as shown below.



What is the surface area, in square inches, of the candle? (Use 3.14 for π .)

- F. 84.78 in² H. 35.33 in²
G. 42.39 in² I. 21.20 in²

MA.7.A.3.2

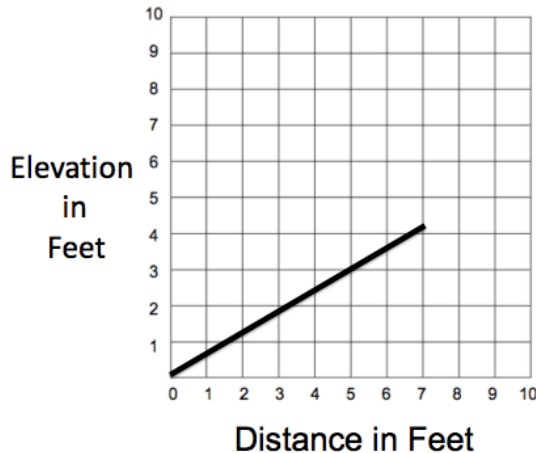
5. On a cold day, Rupert measured the outside temperature and discovered it was 13° F. Each hour after that, Rupert measured the outside temperature and discovered it was 3° F colder than the previous hour's temperature. At this rate, how many hours would it take for the temperature to reach -17° F?

- A. 6 hours C. 10 hours
B. 9 hours D. 15 hours

MA.7.A.1.4

1. The graph below shows the slope of a ramp at a skateboard park.

Slope of a Ramp at a Skateboard Park



The ramp is 5 feet long and 3 feet high. Which of the following shows the slope of the ramp?

- A. $\frac{1}{3}$ C. $\frac{5}{3}$
B. $\frac{3}{5}$ D. 3

MA.7.A.1.5

2. Which situation represents an inverse variation?
- F. Working a forty-hour workweek and earning \$10.50 per hour.
- G. Five people painting a house for the first 4 days and three people completing the job.
- H. Miles driven on exactly 10 gallons of gasoline.
- I. Number of calories burned while walking on a treadmill at a steady speed.

MA.7.A.1.6

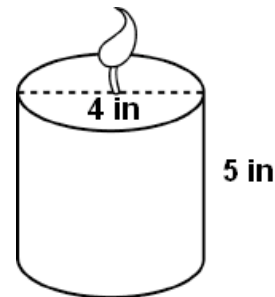
3. Dale and his family are planning to fly from Miami to Boise, Idaho. The direct flight is 3293 kilometers.

Dale drew a line segment on a U.S. map from Miami to Boise to show his younger sister the flight distance between the two cities. If the scale on the map shows that 2 centimeters represents 500 kilometers, what is the length of the line segment Dale drew on the map from one city to the next? (Round to the nearest hundredth).

- A. 13.17 cm C. 1317.2 cm
B. 33.92 cm D. 823,250 cm

MA.7.G.2.1

4. A cylindrical candle has a diameter of 4 inches and a height of 5 inches, as shown below.



What is the surface area, in square inches, of the candle? (Use 3.14 for π .)

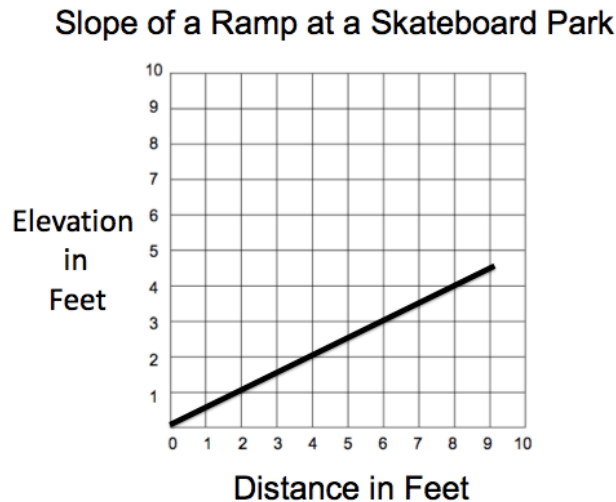
- F. 226.08 in² H. 87.92 in²
G. 113.04 in² I. 43.96 in²

MA.7.A.3.2

5. On a cold day, Rupert measured the outside temperature and discovered it was 15° F. Each hour after that, Rupert measured the outside temperature and discovered it was 4° F colder than the previous hour's temperature. At this rate, how many hours would it take for the temperature to reach -17° F?
- A. 8 hours C. 10 hours
B. 9 hours D. 12 hours

MA.7.A.1.4

1. The graph below shows the slope of a ramp at a skateboard park.



The ramp is 6 feet long and 3 feet high. Which of the following shows the slope of the ramp?

- A. $\frac{1}{2}$ C. 3
B. 2 D. 6

MA.7.A.1.5

2. Which situation does NOT represent direct variation?
- F. Paul earned \$3 working one hour and \$12 working 4 hours.
G. Sam paints one picture in 45 minutes and 3 pictures in 90 minutes.
H. The price of one slice of pizza is \$1.25 and the price of 3 slices of pizza is \$3.75.
I. Phyllis drives 30 mph for one hour and 50 mph for 2 hours.

MA.7.A.1.6

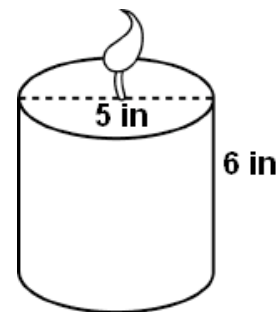
3. Dale and his family are planning to fly from Miami to Los Angeles, CA. The direct flight is 3267 kilometers. Dale drew a line segment on a U.S. map from Miami to Los Angeles to show his younger sister the flight distance between the two cities.

If the scale on the map shows that 3 centimeters represents 800 kilometers, what is the length of the line segment Dale drew on the map from one city to the next?

- A. 2.67 cm C. 266.67 cm
B. 12.25 cm D. 871,200 cm

MA.7.G.2.1

4. A cylindrical candle has a diameter of 5 inches and a height of 6 inches, as shown below.



What is the surface area, in square inches, of the candle? (Use 3.14 for π .)

- F. 66.73 in^2 H. 133.45 in^2
G. 109.9 in^2 I. 172.7 in^2

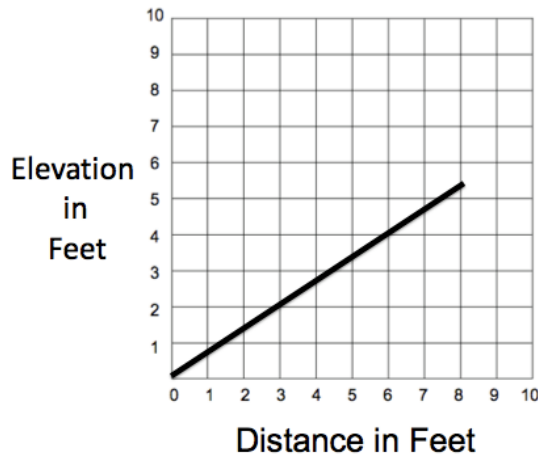
MA.7.A.3.2

5. On a cold day, Rupert measured the outside temperature and discovered it was **20° F**. Each hour after that, Rupert measured the outside temperature and discovered it was **5° F** colder than the previous hour's temperature. At this rate, how many hours would it take for the temperature to reach **-15° F**?
- A. 6 hours C. 9 hours
B. 7 hours D. 10 hours

MA.7.A.1.4

1. The graph below shows the slope of a ramp at a skateboard park.

Slope of a Ramp at a Skateboard Park



The ramp is 6 feet long and 4 feet high. Which of the following shows the slope of the ramp?

- A. $\frac{1}{4}$ C. $\frac{3}{2}$
B. $\frac{2}{3}$ D. 2

MA.7.A.1.5

2. Which scenario does **NOT** represent direct variation?

- F. A pool is filled with 10,000 gallons of water after 5 hours and 12,000 gallons after 4 hours.
G. The price of 3 apples is \$0.90 and the price of 12 apples is \$3.60.
H. Sandy travels 3 miles on her bicycle in 1.5 hours and 5 miles in 2.5 hours.
I. Sasha earns \$15 for babysitting 2 children and \$45 for babysitting 6 children.

MA.7.A.1.6

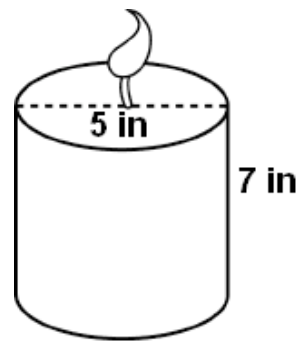
3. Dale and his family are planning to fly from Miami to Orlando, FL. The direct flight is 280 kilometers. Dale drew a line segment on a U.S. map from Miami to Orlando to show his younger sister the flight distance between the two cities.

If the scale on the map shows that 2.5 centimeters represents 250 kilometers, what is the length of the line segment Dale drew on the map from one city to the next?

- A. 1.4 cm C. 2.8 cm
B. 2.23 cm D. 2800 cm

MA.7.G.2.1

4. A cylindrical candle has a diameter of 5 inches and a height of 7 inches, as shown below.



What is the surface area, in square inches, of the candle? (Use 3.14 for π .)

- F. 149.15 in^2 H. 194.8 in^2
G. 188.4 in^2 I. 376.8 in^2

MA.7.A.3.2

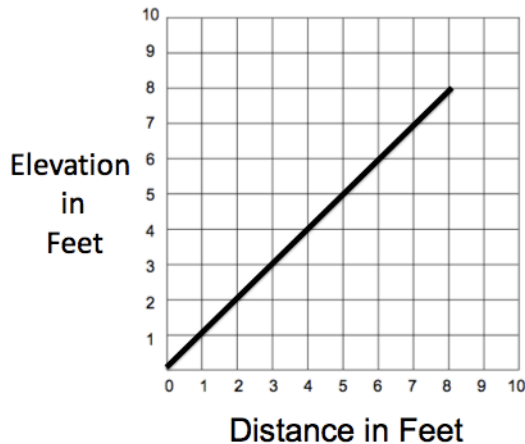
5. On a cold day, Rupert measured the outside temperature and discovered it was 12°F . Each hour after that, Rupert measured the outside temperature and discovered it was 3°F colder than the previous hour's temperature. At this rate, how many hours would it take for the temperature to reach -15°F ?

- A. 4 hours C. 10 hours
B. 9 hours D. 30 hours

MA.7.A.1.4

1. The graph below shows the slope of a ramp at a skateboard park.

Slope of a Ramp at a Skateboard Park



The ramp is 3 feet long and 3 feet high. Which of the following shows the slope of the ramp?

- A. $\frac{1}{3}$ C. 1
B. $\frac{1}{2}$ D. 3

MA.7.A.1.5

2. Which scenario does NOT represent direct variation?

- F. The price of 2 notebooks is \$2.50 and the price of 5 notebooks is \$6.25
G. Joseph reads one page in 15 seconds, and 5 pages in 2 minutes.
H. Julio walks 2 miles in 1 hour and 20 minutes and 5 miles in 3 hours and 20 minutes.
I. One intensive math class has 24 students, and 2 classes have 48 students.

MA.7.A.1.6

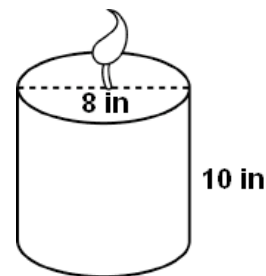
3. Dale and his family are planning to fly from Syracuse, NY to Miami. Dale drew a line segment on a U.S. map from Seattle to Miami to show his younger sister the flight distance between the two cities.

If the scale on the map shows that 2 centimeters represents 600 kilometers, and Dale draw a line segment that was 5.7 cm long, what is the distance from Syracuse, NY to Miami?

- A. 4.44 km C. 1710 km
B. 1111 km D. 3420 km

MA.7.G.2.1

4. A cylindrical candle has a diameter of 8 inches and a height of 10 inches, as shown below.



What is the surface area, in square inches, of the candle? (Use 3.14 for π .)

- F. 175.84 in² H. 276.32 in²
G. 251.2 in² I. 351.68 in²

MA.7.A.3.2

5. Rhonda recorded the temperature in a table every few hours.

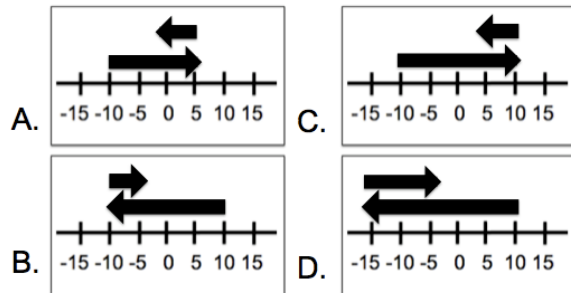
Time	Temperature (in degrees Fahrenheit)
6:00 a.m.	-10°
9:00 a.m.	-5°
12:00 p.m.	
3:00 p.m.	

From 9:00 a.m. to 12:00 p.m., the temperature dropped 15 degrees, and from 12:00 p.m. to 3:00 p.m., the temperature rose 11 degrees. What was the temperature at 3:00 p.m.?

- A. 9 °F C. -9 °F
B. 10 °F D. 10 °F

1. MA.7.A.3.1

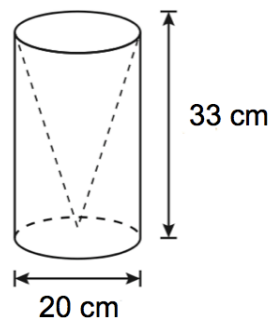
Which of the following best represents the method for finding the value of $-10 + 20 - 5$?



2. MA.7.G.2.2

Rebecca used a right circular cylinder piece of ice to cut out a cone. The dimensions of the ice piece she used are shown below.

Piece of Ice Used



Which is closest to the volume of the remaining ice after Rebecca removes the largest cone possible from the right circular cylinder?

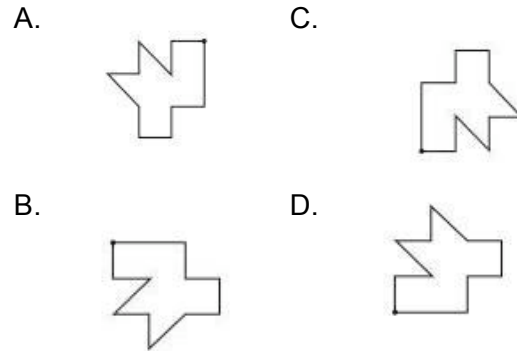
- F. 1351 cm^3 H. 6911 cm^3
G. 3456 cm^3 I. 10367 cm^3

MA.7.G.4.2

3. Jim rotated a game piece 270° clockwise around vertex **V** to see if he could use it for his next move.



Which represents the position of the game piece after the 270° clockwise rotation?



MA.7.A.3.4

4. Which equation is true?

- F. $5 + (6 + 2) = 5 + (6 \times 2)$
G. $5 + (6 + 2) = 5 \times (2 \times 6)$
H. $5 + (6 + 2) = (5 + 6) + 2$
I. $5 + (6 + 2) = (5 + 6) + (5 + 2)$

MA.7.P.7.1

5. Mrs. Davis is teaching her class about probability. She prepared the set of golf balls listed below:

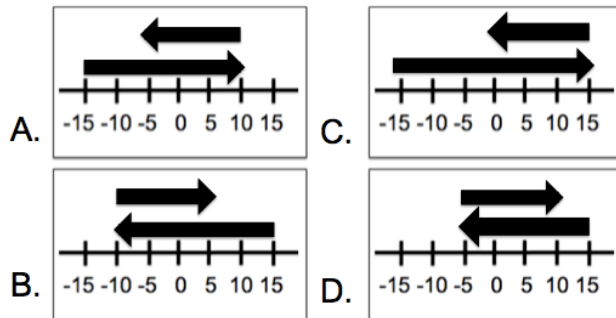
- 6 red golf balls, each labeled with a different number from 1 to 6
- 7 green golf balls, each labeled with a different number from 1 to 7
- 8 blue golf balls, each labeled with a different number from 1 to 8
- 9 yellow golf balls, each labeled with a different number from 1 to 9

Mrs. Davis put all the golf balls into a sack and mixed them up. Nancy will be the first student to select a golf ball from the sack without looking. Which of the following outcomes is **most likely** to occur?

- A. Nancy will select a yellow golf ball.
B. Nancy will select a golf ball that is not blue.
C. Nancy will select a golf ball with the number 6 on it.
D. Nancy will select a golf ball with a number on it that is not 1.

1. MA.7.A.3.1

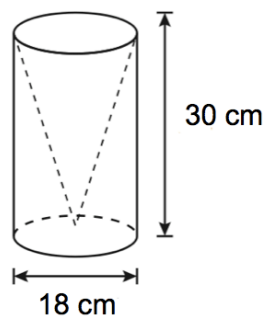
Which of the following best represents the method for finding the value of $-15 + 25 - 15$?



MA.7.G.2.2

2. Rebecca used a right circular cylinder piece of ice to cut out a cone. The dimensions of the ice piece she used are shown below.

Piece of Ice Used



Which is closest to the volume of the remaining ice after Rebecca removes the largest cone possible from the right circular cylinder?

- F. 7630 cm^3 H. 2543 cm^3
G. 5087 cm^3 I. 1696 cm^3

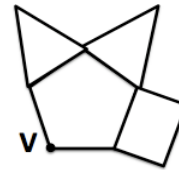
MA.7.A.3.4

3. Selena multiplied 12 by 15 to find the number of reams of paper stored in a copy room. Justin multiplied 15 by 12 and got the same result. Which property justifies why these two calculations are equivalent?

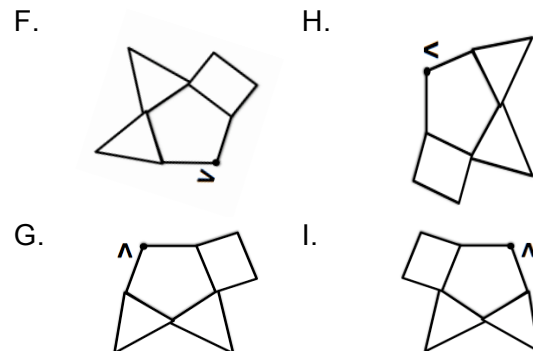
- A. commutative property
B. associative property
C. distributive property
D. identity property

MA.7.G.4.2

4. Jim rotated a game piece 180° counterclockwise around vertex V to see if he could use it for his next move.



Which represents the position of the game piece after the 180° counterclockwise rotation?



MA.7.P.7.1

5. Mrs. Davis is teaching her class about probability. She prepared the set of golf balls listed below:

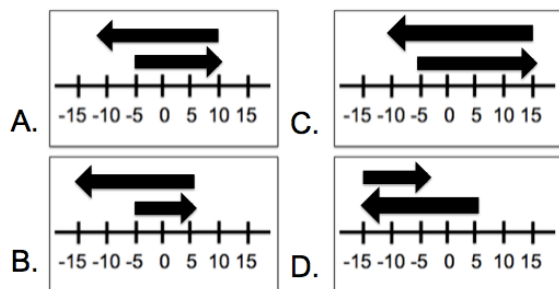
- 6 red golf balls, each labeled with a different number from 1 to 6
- 7 green golf balls, each labeled with a different number from 1 to 7
- 8 blue golf balls, each labeled with a different number from 1 to 8
- 9 yellow golf balls, each labeled with a different number from 1 to 9

Mrs. Davis put all the golf balls into a sack and mixed them up. Nancy will be the first student to select a golf ball from the sack without looking. Which of the following outcomes is **most likely** to occur?

- A. Nancy will select a golf ball with an even number on it.
B. Nancy will select a golf ball with an odd number on it.
C. Nancy will select a golf ball with the number 5 or the number 7 on it.
D. Nancy will select a golf ball with a number on it that is less than 4.

1. MA.7.A.3.1

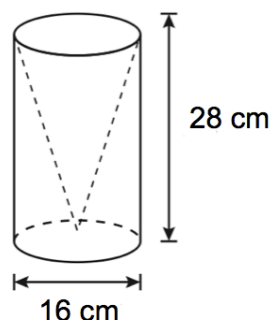
Which of the following best represents the method for finding the value of $-5 + 10 - 20$



MA.7.G.2.2

2. Rebecca used a right circular cylinder piece of ice to cut out a cone. The dimensions of the ice piece she used are shown below.

Piece of Ice Used



Which is closest to the volume of the remaining ice after Rebecca removes the largest cone possible from the right circular cylinder?

- F. $3,751 \text{ cm}^3$ H. $15,006 \text{ cm}^3$
G. $7,502 \text{ cm}^3$ I. $22,508 \text{ cm}^3$

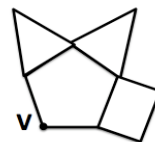
MA.7.A.3.4

3. Which equation represents a TRUE equality?

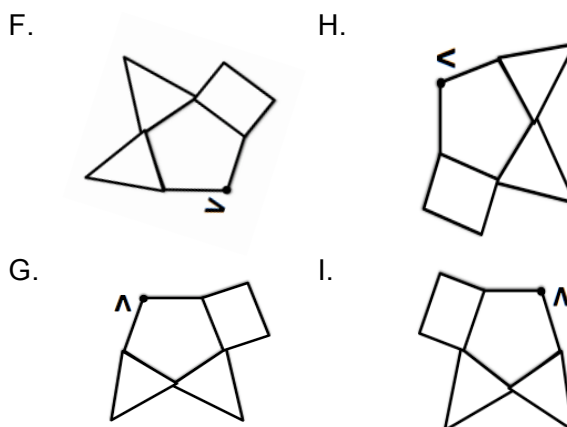
- A. $6 \div 4 = 4 \div 6$
B. $6 - 4 - 2 = 4 - 2 - 6$
C. $(6 + 7) + 8 = 6 + (7 + 8)$
D. $(6 - 4) + 5 = (6 - 5) + 4$

MA.7.G.4.2

4. Jim rotated a game piece 270° counter-clockwise around vertex V to see if he could use it for his next move.



Which represents the position of the game piece after the 270° counterclockwise rotation?



MA.7.P.7.1

5. Mrs. Davis is teaching her class about probability. She prepared the set of golf balls listed below:

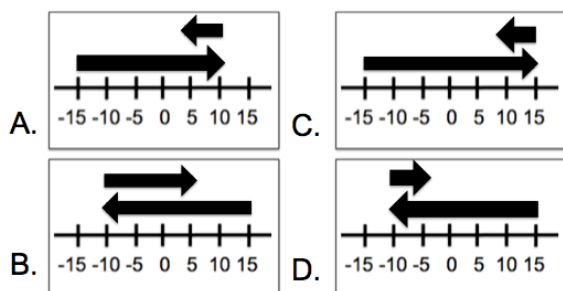
- 6 red golf balls, each labeled with a different number from 1 to 6
- 7 green golf balls, each labeled with a different number from 1 to 7
- 8 blue golf balls, each labeled with a different number from 1 to 8
- 9 yellow golf balls, each labeled with a different number from 1 to 9

Mrs. Davis put all the golf balls into a sack and mixed them up. Nancy will be the first student to select a golf ball from the sack without looking. Which of the following outcomes is **most likely** to occur?

- A. Nancy will select a blue or yellow golf ball.
B. Nancy will select a green or red golf ball.
C. Nancy will select a blue or green golf ball.
D. Nancy will select a green or yellow golf ball.

1. MA.7.A.3.1

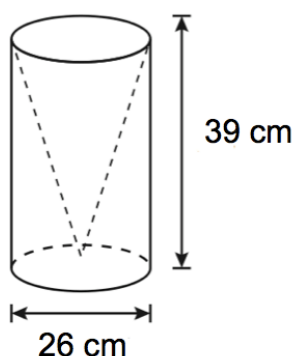
Which of the following best represents the method for finding the value of $15 - 25 + 5$?



MA.7.G.2.2

2. Rebecca used a right circular cylinder piece of ice to cut out a cone. The dimensions of the ice piece she used are shown below.

Piece of Ice Used



Which is closest to the volume of the remaining ice after Rebecca removes the largest cone possible from the right circular cylinder?

- F. $1,592 \text{ cm}^3$ H. $82,783 \text{ cm}^3$
G. $13,797 \text{ cm}^3$ I. $173,292 \text{ cm}^3$

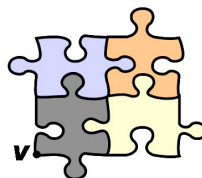
MA.7.A.3.4

3. Which equation is equivalent to $8 + y = 17$?

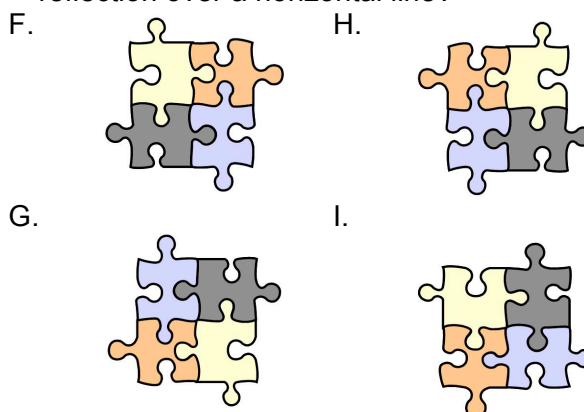
- A. $y = 17 + 8$
B. $y = 17 - 8$
C. $8 + y = 17 \times 0$
D. $8 = y - 17$

MA.7.G.4.2

4. Jim rotated a game piece 90° clockwise around vertex V and reflected it over a horizontal line.



Which represents the position of the game piece after the 90° clockwise rotation and a reflection over a horizontal line?



MA.7.P.7.1

5. Mrs. Davis is teaching her class about probability. She prepared the set of golf balls listed below:

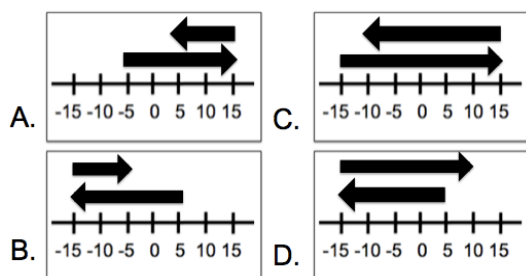
- 6 red golf balls, each labeled with a different number from 1 to 6
- 7 green golf balls, each labeled with a different number from 1 to 7
- 8 blue golf balls, each labeled with a different number from 1 to 8
- 9 yellow golf balls, each labeled with a different number from 1 to 9

Mrs. Davis put all the golf balls into a sack and mixed them up. Nancy will be the first student to select a golf ball from the sack without looking. Which of the following outcomes is **most likely** to occur?

- A. Nancy will select a golf ball with a prime number on it.
B. Nancy will select a golf ball with a composite number on it.
C. Nancy will select a golf ball with a number that is 6 or higher.
D. Nancy will select a golf ball with a number less than 5.

1. MA.7.A.3.1

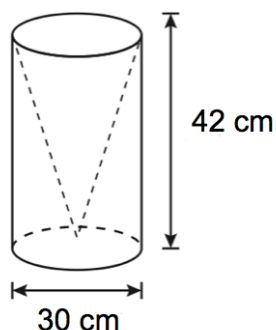
Which of the following best represents the method for finding the value of $5 - 20 + 10$?



2. MA.7.G.2.2

Rebecca used a right circular cylinder piece of ice to cut out a cone. The dimensions of the ice piece she used are shown below.

Piece of Ice Used



Which is closest to the volume of the remaining ice after Rebecca removes the largest cone possible from the right circular cylinder?

F. $79,128 \text{ cm}^3$ H. $19,782 \text{ cm}^3$

G. $29,673 \text{ cm}^3$ I. $9,891 \text{ cm}^3$

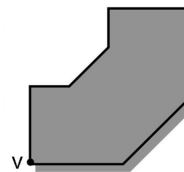
MA.7.A.3.4

3. Which equation is equivalent to $9 + y = 36$?

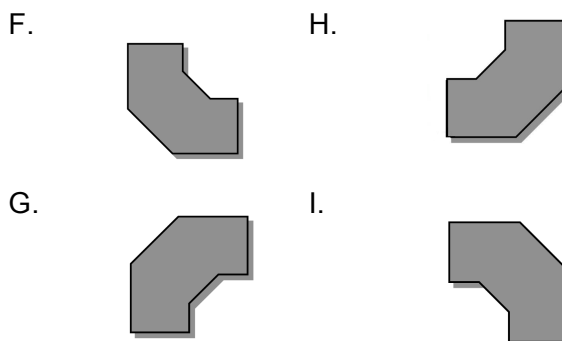
- A. $y = 36 + 9$
B. $9 + y = 36 \times 0$
C. $9 = y - 36$
D. $y = 36 - 9$

MA.7.G.4.2

4. Jim rotated a game piece 270° counterclockwise around vertex **V** and reflected it over a vertical line.



Which represents the position of the game piece after the 270° counterclockwise rotation and a reflection over a vertical line?



MA.7.P.7.1

5. Mrs. Davis is teaching her class about probability. She prepared the set of golf balls listed below:

- 6 red golf balls, each labeled with a different number from 1 to 6
- 7 green golf balls, each labeled with a different number from 1 to 7
- 8 blue golf balls, each labeled with a different number from 1 to 8
- 9 yellow golf balls, each labeled with a different number from 1 to 9

Mrs. Davis put all the golf balls into a sack and mixed them up. Nancy will be the first student to select a golf ball from the sack without looking. Which of the following outcomes is **most unlikely** to occur?

- A. Nancy will select a golf ball that is red or yellow.
B. Nancy will select a golf ball that is green or red.
C. Nancy will select a golf ball with the number on it that is a multiple of 2.
D. Nancy will select a golf ball with a number on it that is a multiple of 3.

Grade 7
Answer Key
to
40-Day Math Countdown

Week 1 - Grade 7					
	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5
1	B	D	C	A	D
2	-27	-90	-1	-5.2 or $-5\frac{1}{5}$	7.75 or $7\frac{3}{4}$
3	9	8	11	12	6
4	G	H	G	F	H
5	C	D	C	C	A

Week 2 - Grade 7					
	DAY 6	DAY 7	DAY 8	DAY 9	DAY 10
1	56	$4\frac{1}{2}$	15	$5\frac{1}{4}$	$8\frac{1}{4}$
2	C	B	C	C	D
3	I	G	I	H	F
4	B	D	B	D	C
5	H	G	I	H	I

Week 3 - Grade 7					
	DAY 11	DAY 12	DAY 13	DAY 14	DAY 15
1	G	H	I	F	G
2	B	D	C	A	C
3	48	61	12	591	6.25
4	G	I	H	F	H
5	C	D	B	D	B

Week 4 - Grade 7					
	DAY 16	DAY 17	DAY 18	DAY 19	DAY 20
1	80	192	270	768	2250
2	A	B	C	D	B
3	F	G	I	F	I
4	C	B	C	B	B
5	I	F	G	H	H

Week 5 - Grade 7					
	DAY 21	DAY 22	DAY 23	DAY 24	DAY 25
1	C	B	B	D	B
2	736	528	976	534	281
3	2185	1544	3355	1042	3948
4	I	H	H	F	G
5	B	D	D	D	C

Week 6 - Grade 7					
	DAY 26	DAY 27	DAY 28	DAY 29	DAY 30
1	3.75	4.80	5.63	7.68	6.72
2	13	9	15	12	12
3	A	D	C	B	B
4	3	2.5 or $2\frac{1}{2}$	5.625 or $5\frac{5}{8}$	4.125 or $4\frac{1}{8}$	10
5	H	G	G	I	F

Week 7 - Grade 7					
	DAY 31	DAY 32	DAY 33	DAY 34	DAY 35
1	C	B	A	B	C
2	H	G	G	F	G
3	D	A	B	C	C
4	G	H	H	F	I
5	C	A	B	B	C

Week 8 - Grade 7					
	DAY 36	DAY 37	DAY 38	DAY 39	DAY 40
1	C	A	B	D	B
2	H	G	F	G	H
3	A	A	C	B	D
4	H	I	H	F	H
5	D	B	A	D	A

REGION CENTER II MATHEMATICS GRADE 7 NGSSS

Benchmark	MC GR	DOK	Tested	1	2	3	4	5	6	7	8	PACING GUIDE	TIMES REVIEWED
MA.7.A.1.1	MC GR	H	✓		GR			MC				2 nd 9 weeks	2
MA.7.A.1.2	MC GR	H	✓		MC				GR			2 nd 9 weeks	2
MA.7.A.1.3	MC GR	H	✓		MC				GR			2 nd 9 weeks	2
MA.7.A.1.4	MC	M	✓			MC				MC		2 nd 9 weeks	2
MA.7.A.1.5	MC	M	✓			MC				MC		2 nd 9 weeks	2
MA.7.A.1.6	MC GR	M	✓			GR				MC		2 nd 9 weeks	2
MA.7.G.2.1	MC GR	M	✓					GR		MC		3 rd 9 weeks	2
MA.7.G.2.2	MC GR	M	✓					GR			MC	3 rd 9 weeks	2
MA.7.A.3.1	MC	M	✓	MC							MC	1 st 9 weeks	2
MA.7.A.3.2	MC GR	M	✓	GR						MC		1 st 9 weeks	2
MA.7.A.3.3	MC GR	M	✓	GR	MC							1 st 9 weeks	2
MA.7.A.3.4	MC	M	✓			MC					MC	1 st 9 weeks	2
MA.7.G.4.1	MC GR	H	✓				GR		MC			3 rd 9 weeks	2
MA.7.G.4.2	MC	M	✓				MC				MC	3 rd 9 weeks	2
MA.7.G.4.3	MC	L	✓					MC				3 rd 9 weeks	1
MA.7.G.4.4	MC GR	H	✓				MC		GR			3 rd 9 weeks	2
MA.7.A.5.1	MC	L	✓	MC								1 st 9 weeks	1
MA.7.S.6.1	MC	H	✓	MC					MC			4 th 9 weeks	2
MA.7.S.6.2	MC GR	M	✓		GR		GR					4 th 9 weeks	2
MA.7.P.7.1	MC	M	✓				MC				MC	2 nd 9 weeks	2
MA.7.P.7.2	MC	H	✓			MC		MC				2 nd 9 weeks	2

The 2 low cognitive complexity benchmarks are reviewed once.

All other benchmarks are reviewed twice.

Because they are taught in the 4th nine week period, exposure benchmarks S61 and S62 are reviewed during the first 2 weeks and again during week 4 and 6.