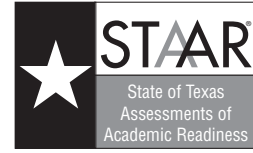


GRADE 3
Mathematics

Administered May 2021

RELEASED

STAAR GRADE 3 MATHEMATICS REFERENCE MATERIALS



LENGTH

Customary

1 mile (mi) = 1,760 yards (yd)

1 yard (yd) = 3 feet (ft)

1 foot (ft) = 12 inches (in.)

Metric

1 kilometer (km) = 1,000 meters (m)

1 meter (m) = 100 centimeters (cm)

1 centimeter (cm) = 10 millimeters (mm)

VOLUME AND CAPACITY

Customary

1 gallon (gal) = 4 quarts (qt)

1 quart (qt) = 2 pints (pt)

1 pint (pt) = 2 cups (c)

1 cup (c) = 8 fluid ounces (fl oz)

Metric

1 liter (L) = 1,000 milliliters (mL)

WEIGHT AND MASS

Customary

1 ton (T) = 2,000 pounds (lb)

1 pound (lb) = 16 ounces (oz)

Metric

1 kilogram (kg) = 1,000 grams (g)

1 gram (g) = 1,000 milligrams (mg)

TIME

1 year = 12 months

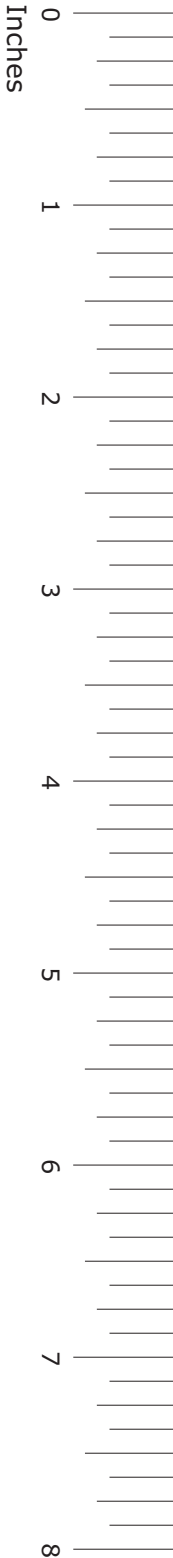
1 year = 52 weeks

1 week = 7 days

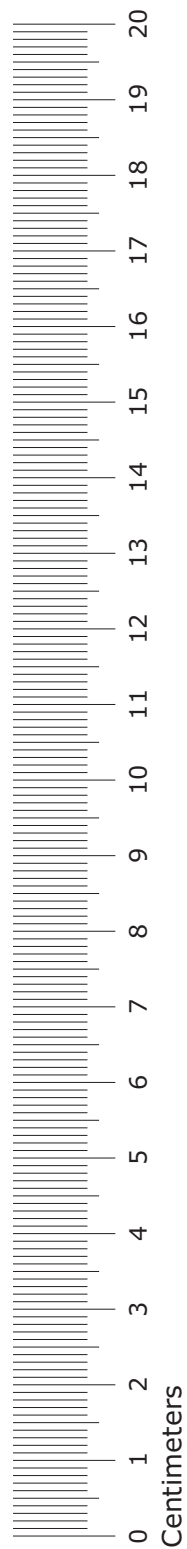
1 day = 24 hours

1 hour = 60 minutes

1 minute = 60 seconds

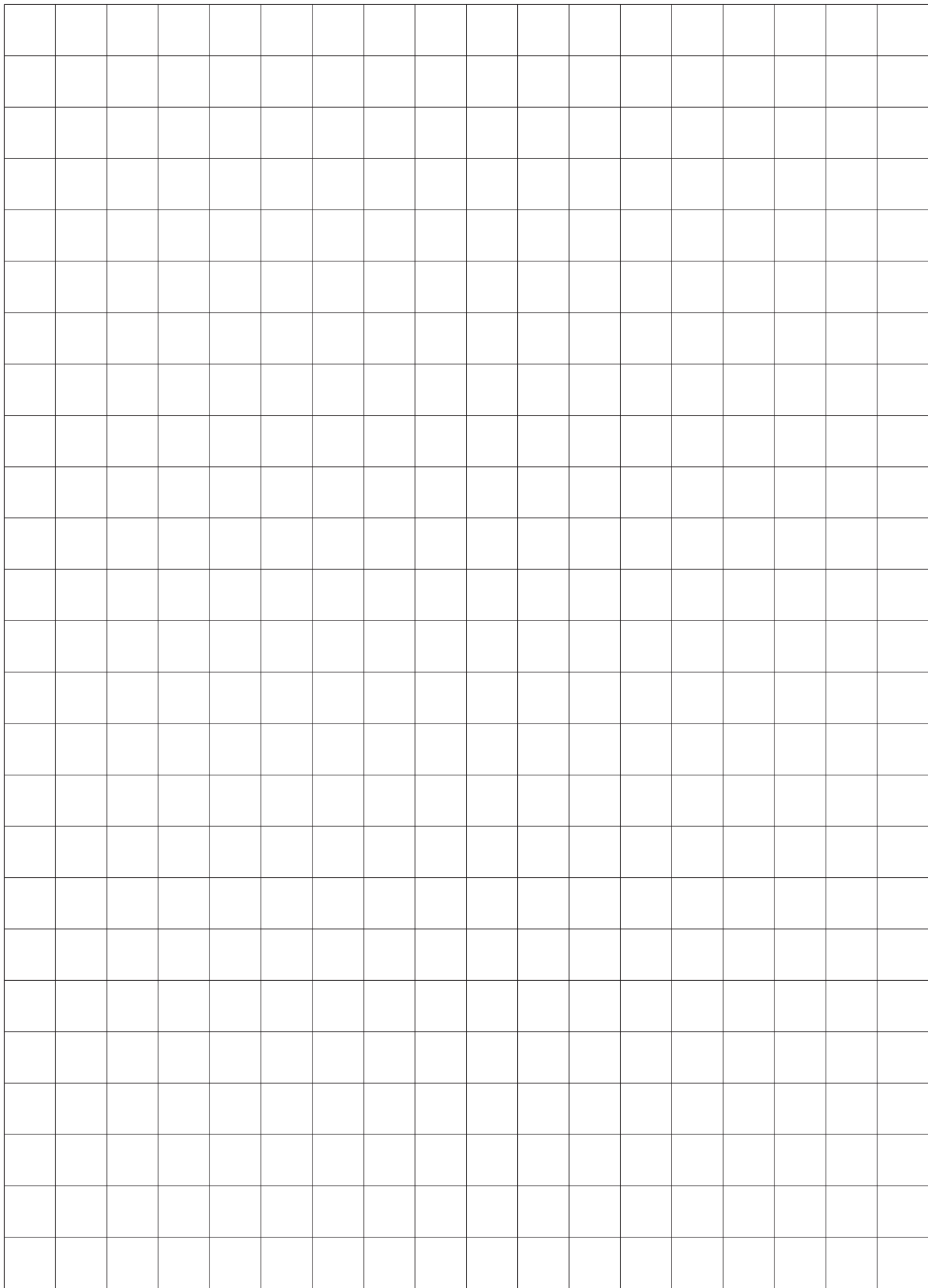


STAAR GRADE 3 MATHEMATICS REFERENCE MATERIALS



This page shows only
the metric ruler.





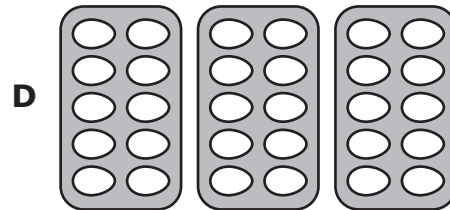
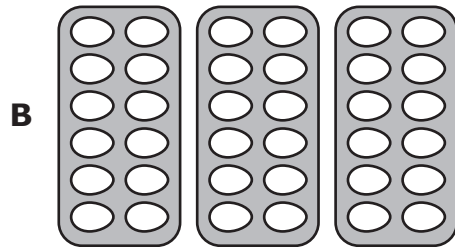
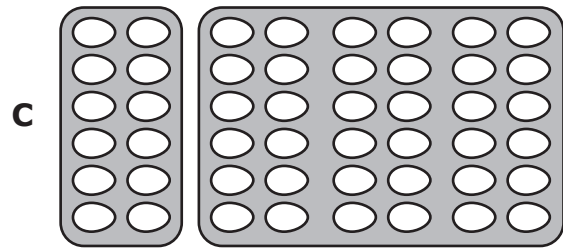
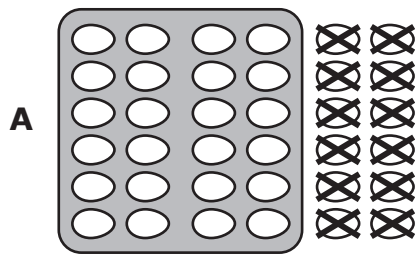
MATHEMATICS

DIRECTIONS

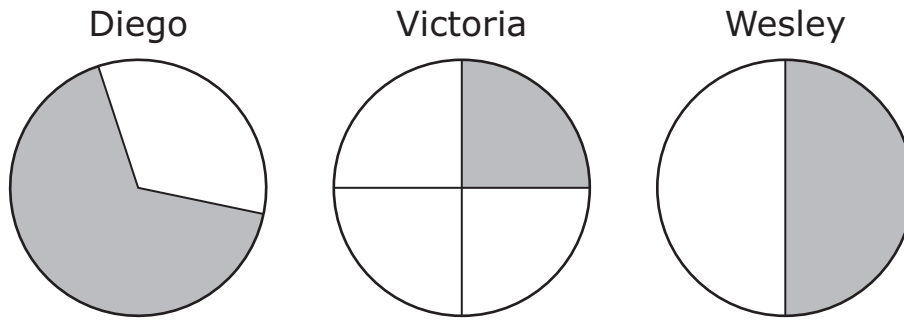
Read each question carefully. For a multiple-choice question, determine the best answer to the question from the four answer choices provided. For a griddable question, determine the best answer to the question. Then fill in the answer on your answer document.

- 1 Victor bought 36 eggs at a grocery store. The eggs were in cartons with 12 eggs in each carton.

Which model best represents the number of cartons of eggs Victor bought?



- 2 Three friends divided three pizzas into pieces. The shaded parts of the models represent the pieces that the friends ate.



Which statement describes the fraction of a pizza that one of the friends ate?

- F** Diego ate $\frac{1}{2}$ of a pizza, because he ate the largest piece of his 2 pieces.
- G** Victoria ate $\frac{1}{3}$ of a pizza, because she ate 1 piece and had 3 equal-size pieces left over.
- H** Wesley ate $\frac{1}{2}$ of a pizza, because he ate 1 piece of his 2 equal-size pieces.
- J** Victoria ate $\frac{3}{1}$ of a pizza, because she ate 1 piece and had 3 pieces left over.

- 3 A theater sold tickets for three movies. The table shows the number of tickets sold for each movie.

Movie Tickets Sold

Movie	1	2	3
Number of Tickets	143	158	175

What was the total number of tickets the theater sold for these three movies?

- A 476
- B 366
- C 376
- D 473

4 Owen received the coins and bills shown when he sold lemonade.



What is the value of the coins and bills Owen received?

- F \$8.85
- G \$9.00
- H \$9.10
- J \$8.90

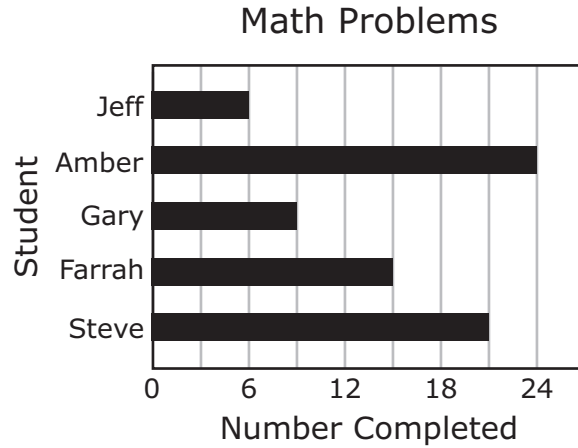
5 An expression is shown.

$$70 + 2 + 900$$

What number is equivalent to this expression?

Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.

- 6 The bar graph shows the number of math problems each of five students completed during math class.



Which list matches the data in the bar graph?

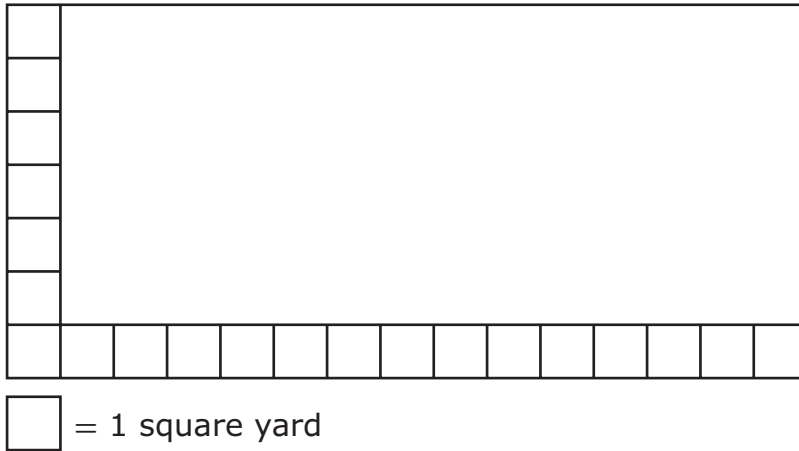
F Jeff: 6
Amber: 24
Gary: 8
Farrah: 14
Steve: 20

H Jeff: 6
Amber: 24
Gary: 9
Farrah: 15
Steve: 21

G Jeff: 9
Amber: 24
Gary: 6
Farrah: 15
Steve: 21

J Jeff: 6
Amber: 21
Gary: 9
Farrah: 15
Steve: 24

- 7 Workers at a school are covering a rectangular patio with square tiles. Each square tile has an area of 1 square yard. The figure shows the part of the patio that has already been covered with square tiles.



What is the area of the entire patio in square yards?

- A 105 square yards
- B 90 square yards
- C 98 square yards
- D 84 square yards

8 The table shows the number of snow cones sold at a shop on each of three days.

Snow Cones

Day	Number Sold
Friday	273
Saturday	123
Sunday	305

Which answer choice is the best estimate of the total number of snow cones sold on these three days?

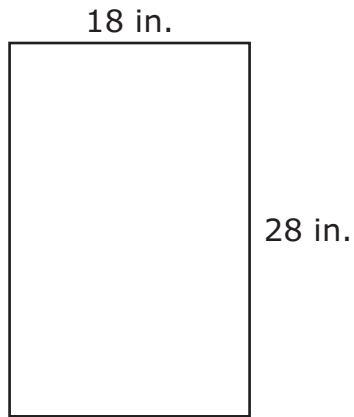
F 600

G 700

H 900

J 800

9 The side lengths of a rectangular mirror are shown in inches.



What is the perimeter of the mirror in inches?

- A 72 in.
- B 46 in.
- C 74 in.
- D 92 in.

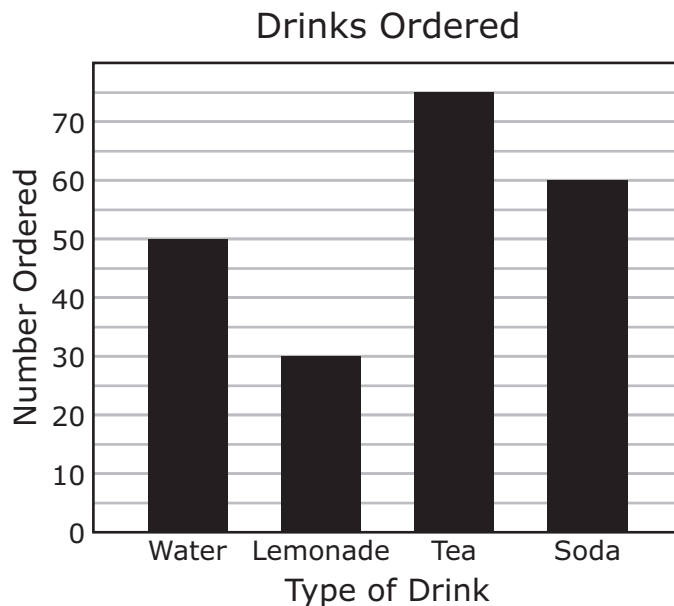
10 Miriam had 63 flowers and 9 vases.

- She threw away 9 flowers that had broken stems.
- She put an equal number of all the flowers she had left into each vase.

What is the greatest number of flowers Miriam put into each vase?

- F** 2
- G** 7
- H** 8
- J** 6

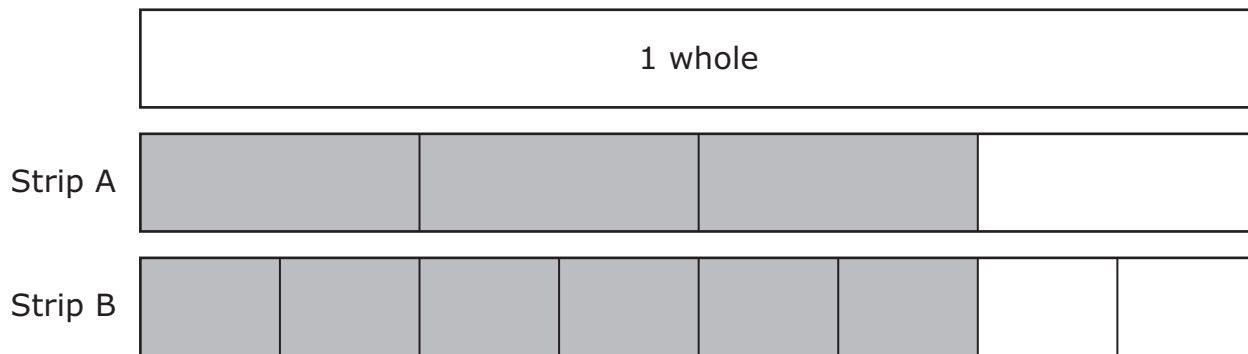
11 The bar graph shows the number of each different type of drink that was ordered in a restaurant one day.



What was the total number of drinks ordered?

- A** 205
- B** 75
- C** 215
- D** 210

12 Each strip of the diagram is shaded to represent a fraction of 1 whole.



The fractions represented are —

- F** equivalent, because the shaded area of Strip B is greater than the shaded area of Strip A
- G** not equivalent, because Strip A has 4 parts in all and Strip B has 8 parts in all
- H** equivalent, because the shaded area of Strip A is the same as the shaded area of Strip B
- J** not equivalent, because Strip A has 3 shaded parts and Strip B has 6 shaded parts

- 13** The table shows the numbers of baseball cards in different numbers of packages.

Baseball Cards

Number of Packages	Number of Baseball Cards
2	22
3	33
4	44
5	55

Based on the relationship shown in the table, which statement is true?

- A** The number of packages times 1 equals the number of baseball cards.
- B** The number of packages plus 1 equals the number of baseball cards.
- C** The number of packages plus 11 equals the number of baseball cards.
- D** The number of packages times 11 equals the number of baseball cards.

14 There are 4 erasers on each table in a classroom. There are 5 tables in the classroom.

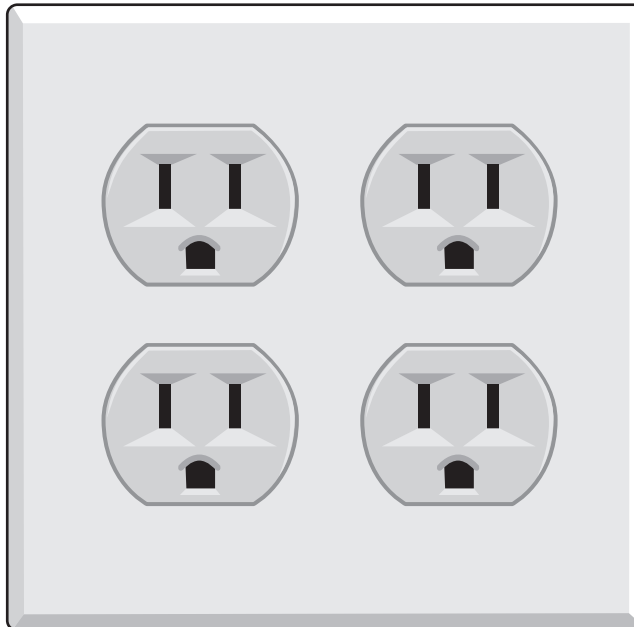
What is the total number of erasers on all of the tables in this classroom?

Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.

15 After a soccer game Isaac drank a bottle of water. Which unit of measurement can be used to measure the volume of the water in the bottle?

- A** Fluid ounces
- B** Grams
- C** Inches
- D** Square centimeters

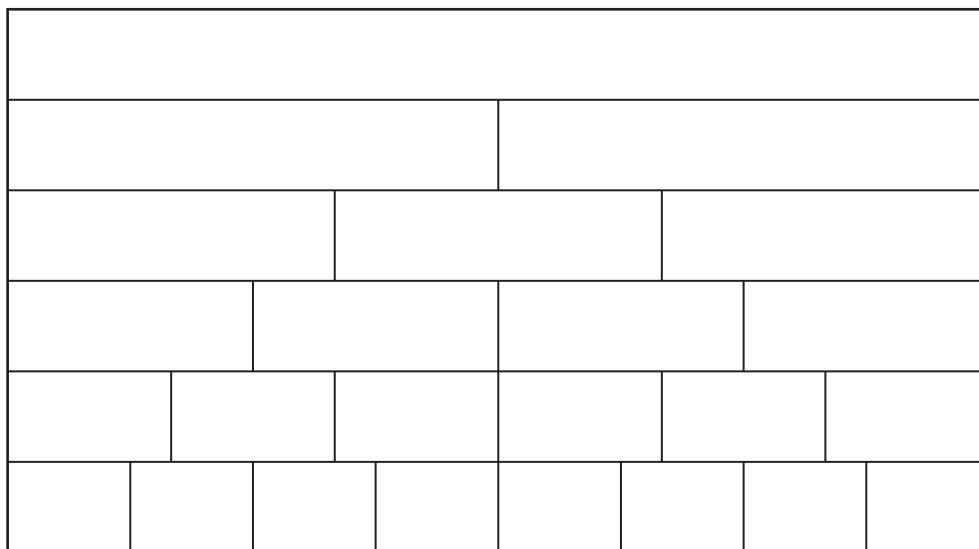
16 The electrical panel shown has 4 outlets.



How many outlets do 6 of these electrical panels have?

- F** 28
- G** 20
- H** 24
- J** 10

17 Fraction strips are shown.



Which comparison is true?

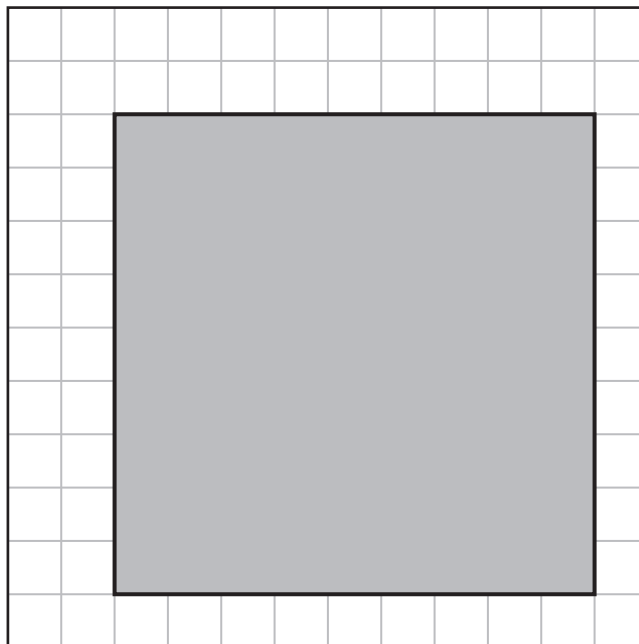
A $\frac{1}{6} < \frac{1}{4}$

B $\frac{1}{3} < \frac{1}{8}$

C $\frac{1}{4} > \frac{1}{2}$

D $\frac{1}{8} = \frac{2}{8}$

- 18** Heidi is making a rectangular card. The shaded rectangle on the grid represents the card.

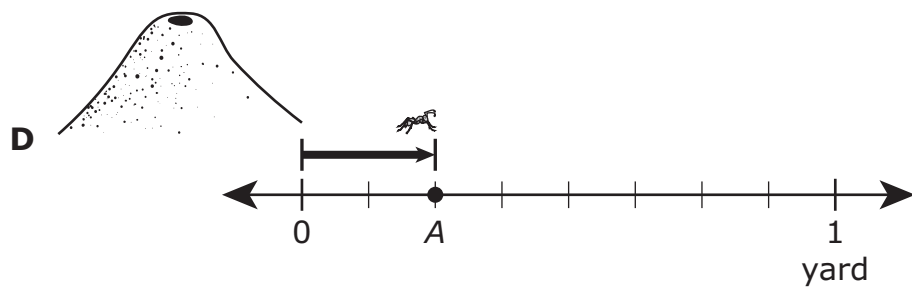
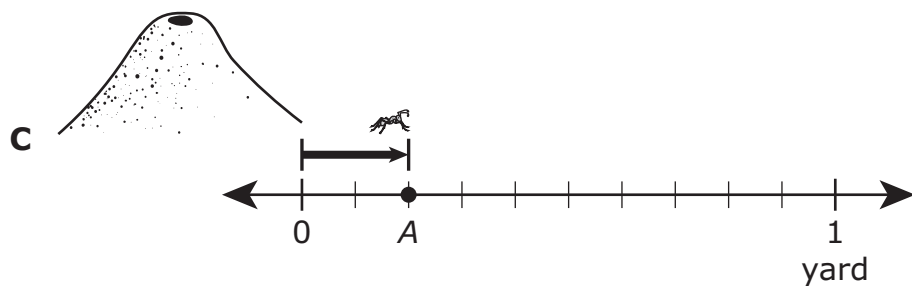
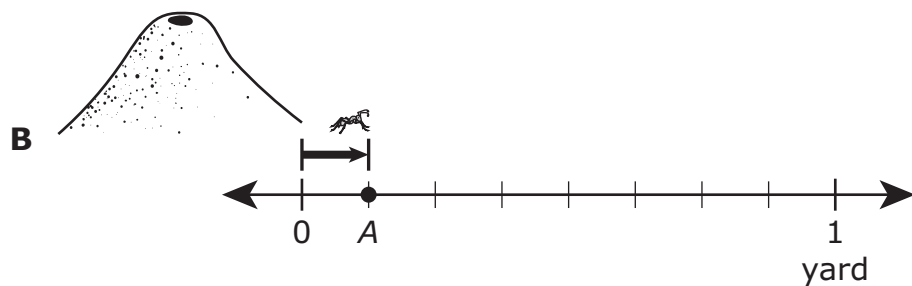
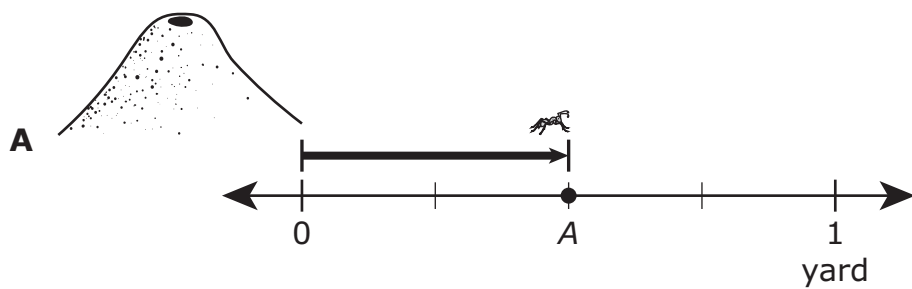


= 1 square centimeter

What is the area of this card in square centimeters?

- F** 18 square centimeters
- G** 36 square centimeters
- H** 90 square centimeters
- J** 81 square centimeters

- 19 An ant crawled $\frac{2}{8}$ yard from an ant mound. On which number line does point A represent the ant's position after crawling $\frac{2}{8}$ yard?

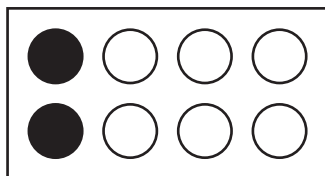


- 20** There are two lions at a zoo. The weight of the younger lion is 379 pounds. The weight of the older lion is 514 pounds.

What is the difference in pounds between these two weights?

- F** 235 lb
 - G** 135 lb
 - H** 265 lb
 - J** 145 lb
-

- 21** Irene has a group of counters, as shown.



Which two fractions can represent the black counters in the group?

- A** $\frac{2}{6}$ and $\frac{2}{8}$
- B** $\frac{1}{3}$ and $\frac{2}{6}$
- C** $\frac{1}{4}$ and $\frac{2}{8}$
- D** $\frac{1}{4}$ and $\frac{2}{4}$

- 22** A cafeteria sold a total of 513 drinks on Wednesday. The table shows the number of each type of drink that was sold. The number of bottles of milk is missing from the table.

Drinks Sold

Type of Drink	Number Sold
Bottles of apple juice	172
Bottles of milk	?
Bottles of water	263

Which set of equations can be used to find the number of bottles of milk sold?

F $172 + 263 = 435$

$513 + 435 = \square$

G $263 - 172 = 91$

$513 - 91 = \square$

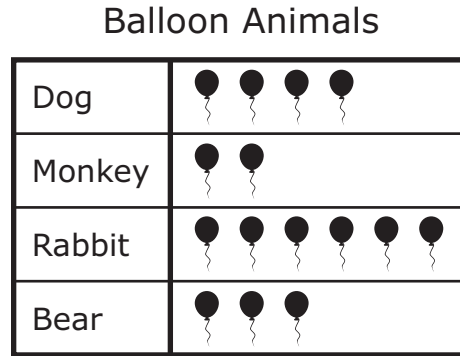
H $513 - 172 = 341$


$341 + 263 = \square$

J $172 + 263 = 435$

$513 - 435 = \square$

- 23 The pictograph shows the number of each type of balloon animal a clown made on Tuesday.



Each  means 2 animals.

Which table correctly represents the data?

A Balloon Animals

Animal	Number of Balloons
Dog	4
Monkey	2
Rabbit	5
Bear	3

C Balloon Animals

Animal	Number of Balloons
Dog	4
Monkey	2
Rabbit	6
Bear	3

B Balloon Animals

Animal	Number of Balloons
Dog	8
Monkey	4
Rabbit	12
Bear	6

D Balloon Animals

Animal	Number of Balloons
Dog	8
Monkey	4
Rabbit	10
Bear	6

- 24** The perimeter of the rectangular floor of Mr. Bryan’s cabin is 46 feet. The width of the floor is 10 feet, as shown.



What is the length of the floor of Mr. Bryan’s cabin in feet?

Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.

-
- 25** A softball team played in 6 tournaments last year. The team paid \$95 to play in each tournament.

What was the total amount the softball team paid to play in these 6 tournaments?

- A** \$570
- B** \$540
- C** \$101
- D** \$480

- 26** The models shown are the same size. Each model is divided into equal-size parts and is shaded to represent a fraction.



Which statement is true?

- F** $\frac{6}{8} < \frac{8}{8}$, because sixths are smaller parts than eighths
- G** $\frac{6}{8} < \frac{8}{8}$, because 6 out of 8 parts is less than 8 out of 8 parts
- H** $\frac{6}{8} > \frac{8}{8}$, because sixths are larger parts than eighths
- J** $\frac{6}{8} > \frac{8}{8}$, because 6 out of 8 parts is greater than 8 out of 8 parts

- 27** Each day a bakery makes cookies and muffins. The number of cookies the bakery makes is always 12 more than the number of muffins it makes.

Which table shows the relationship between the number of muffins and the number of cookies this bakery makes?

A Bakery Muffins and Cookies

Number of Muffins	6	18	30	42
Number of Cookies	12	24	36	48

B Bakery Muffins and Cookies

Number of Muffins	24	36	48	60
Number of Cookies	12	24	36	48

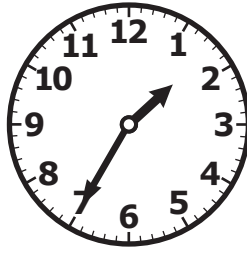
C Bakery Muffins and Cookies

Number of Muffins	1	2	2	4
Number of Cookies	12	24	36	48

D Bakery Muffins and Cookies

Number of Muffins	12	24	36	48
Number of Cookies	24	36	48	60

- 28** On Saturday afternoon Marcus went to a swimming pool. The clock shows the time he arrived at the pool.



He left the pool 45 minutes later. At what time did Marcus leave the pool?

- F** 2:20 P.M.
 - G** 7:55 P.M.
 - H** 2:15 P.M.
 - J** 3:20 P.M.
-

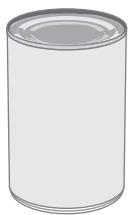
- 29** Cassandra used all the balloons in 11 packages to decorate for a party.

- There were 6 balloons in each package.
- Half of the balloons in each package were red.

Which equation can be used to find the total number of red balloons Cassandra used?

- A** $11 \times 6 - 3 = 63$
- B** $11 \times 6 \div 2 = 33$
- C** $11 - 6 + 2 = 7$
- D** $11 \times 6 \div 3 = 22$

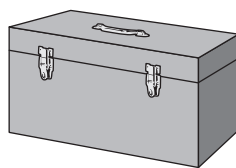
30 The objects shown can be classified into groups based on their shape.



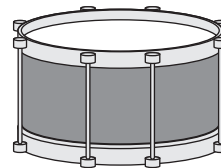
Can



Eraser



Toolbox



Drum

Which table best represents the classifications for these objects?

F Classifications

Group	Object
Prism	Eraser
	Toolbox
Cylinder	Can
	Drum

H Classifications

Group	Object
Prism	Eraser
	Toolbox
Sphere	Can
	Drum

G Classifications

Group	Object
Cube	Eraser
	Toolbox
Cylinder	Can
	Drum

J Classifications

Group	Object
Cylinder	Eraser
	Toolbox
Prism	Can
	Drum

- 31** Hector played a game 14 times. Each time he played, he threw 4 red balls and 3 green balls at a target.

What was the total number of balls Hector threw at the target?

- A** 21
 - B** 68
 - C** 98
 - D** 46
-

- 32** Which comparison is NOT true?

- F** $17,090 > 2,984$
- G** $34,162 < 3,986$
- H** $16,538 > 15,981$
- J** $2,438 < 3,438$



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