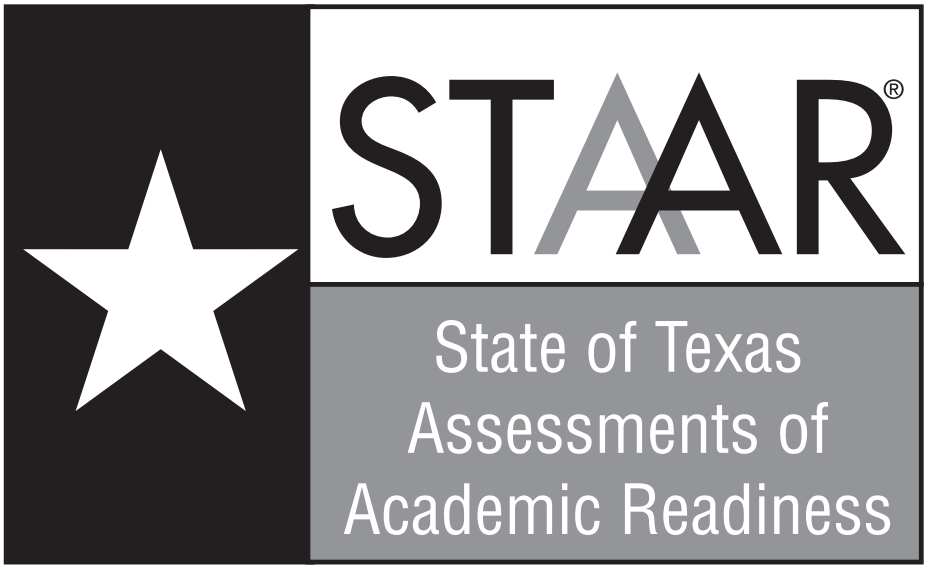

GRADE 3

Mathematics

Administered April 2014

RELEASED

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STAAR GRADE 3 MATHEMATICS REFERENCE MATERIALS

LENGTH

Customary	Metric
1 yard (yd) = 3 feet (ft)	1 meter (m) = 100 centimeters (cm)
1 foot (ft) = 12 inches (in.)	1 centimeter (cm) = 10 millimeters (mm)

TIME

1 year = 12 months

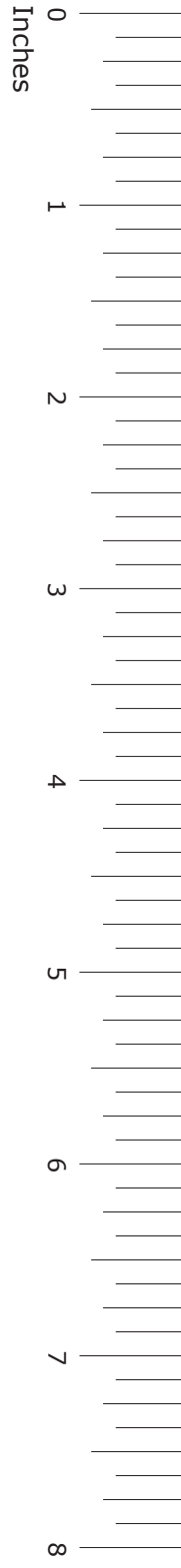
1 year = 52 weeks

1 week = 7 days

1 day = 24 hours

1 hour = 60 minutes

1 minute = 60 seconds



STAAR GRADE 3 MATHEMATICS REFERENCE MATERIALS

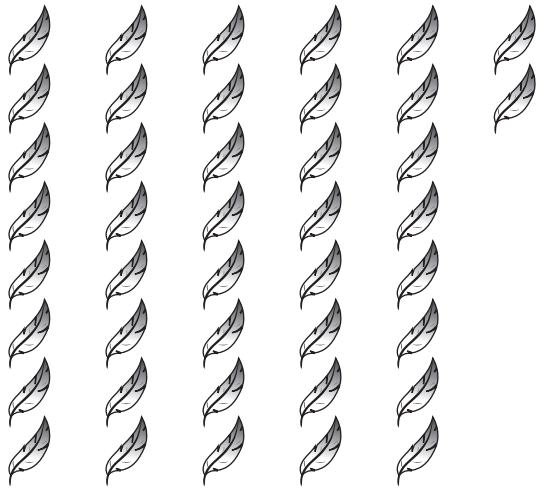
This page shows only the metric ruler.

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 Sofia will arrange 42 feathers into 7 glass cases for her collection.



There will be an equal number of feathers in each glass case. Which number sentence can be used to find the number of feathers in each glass case?

A $42 \div 7 = 6$

B $42 + 7 = 49$

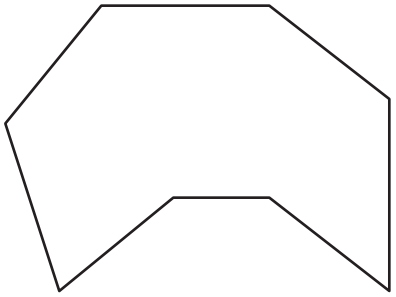
C $42 \times 7 = 294$

D $42 - 7 = 35$

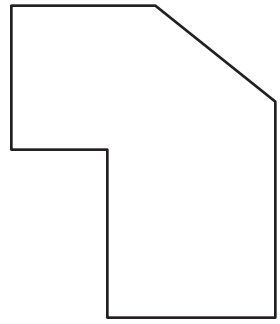
GO ON

2 Which of these figures is **NOT** an octagon?

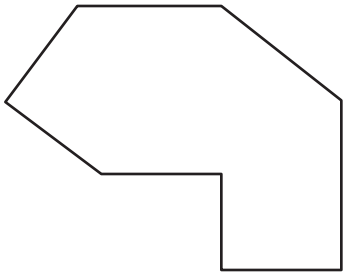
F



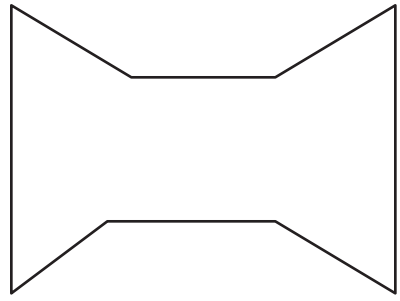
H



G



J



GO ON

3 The table below shows the number of songs of different types that Maricela has on her music player.

Music Player

Type of Song	Number of Songs
Pop	35
Jazz	27
Country	17
Rap	21

If Maricela chooses one of these songs at random, which statement is true?

A It is equally likely to be a jazz song or a rap song.

B It is least likely to be a country song.

C It is equally likely to be a country song or a jazz song.

D It is certain to be a pop song.

---

4 Ramón has a total of 815 sheep in two fields. He has 348 sheep in one of the fields. How many sheep does Ramón have in the other field?

F 533

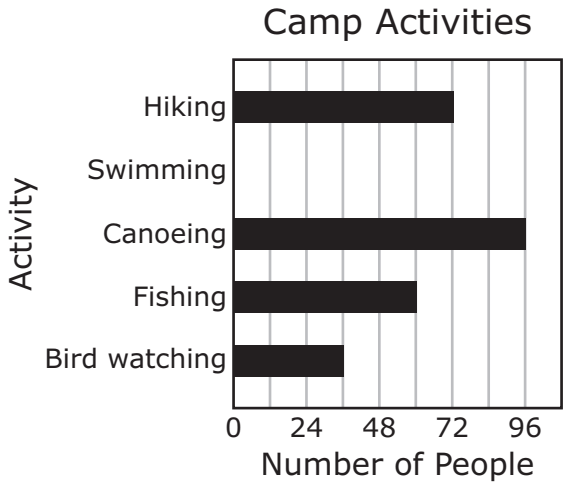
G 577

H 377

J 467

GO ON

5 The graph below shows the number of people who participated in different camp activities last week. The number of people who went swimming is missing.



A total of 304 people participated in these camp activities. Which table represents the number of people who participated in each activity?

A

Camp Activities

Activity	Number of People
Hiking	72
Swimming	64
Canoeing	96
Fishing	48
Bird watching	24

C

Camp Activities

Activity	Number of People
Hiking	72
Swimming	40
Canoeing	96
Fishing	60
Bird watching	36

B

Camp Activities

Activity	Number of People
Hiking	72
Swimming	16
Canoeing	96
Fishing	72
Bird watching	48

D

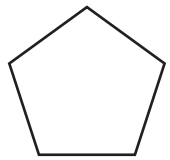
Camp Activities

Activity	Number of People
Hiking	72
Swimming	50
Canoeing	96
Fishing	60
Bird watching	36

GO ON

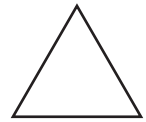
6 All the sides of Figure X are congruent. All the sides of Figure Y are congruent. The length of one side of each figure is shown below.

Figure X



3 cm

Figure Y



4 cm

Which statement about the perimeters of these figures is true?

F The perimeter of Figure X is 1 centimeter less than the perimeter of Figure Y.

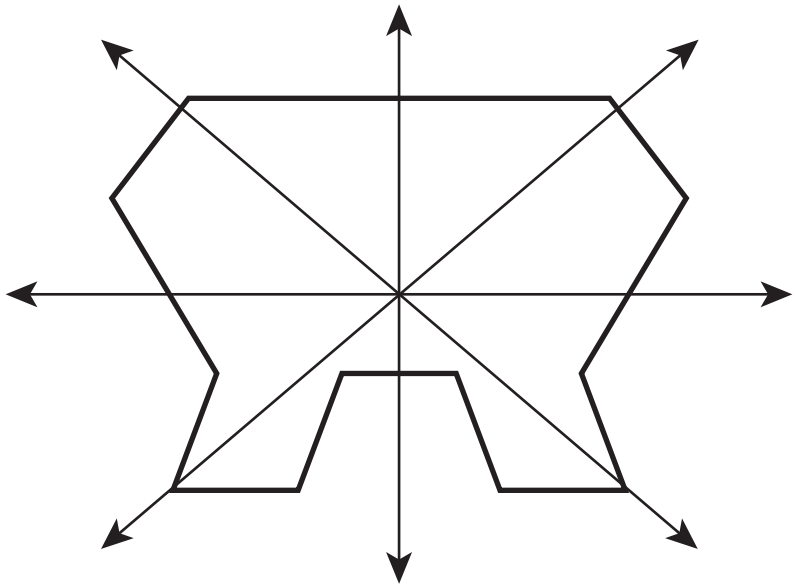
G The perimeter of Figure X is 3 centimeters more than the perimeter of Figure Y.

H The perimeter of Figure X is 5 centimeters less than the perimeter of Figure Y.

J The perimeter of Figure X is 11 centimeters more than the perimeter of Figure Y.

GO ON

7 How many lines of symmetry does this figure have?



A 1

B 2

C 3

D 4

GO ON

8 The table below shows the relationship between the number of red stars and the number of white stars Adyssen drew on different posters.

Posters

Number of White Stars	7	10		19
Number of Red Stars	28	31	35	40

Based on the pattern in the table, which number sentence can be used to find the number of white stars Adyssen drew if she drew 35 red stars on a poster?

F $19 - 10 = 9$

G $35 - 21 = 14$

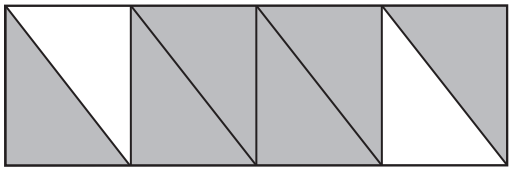
H $7 + 10 = 17$

J $10 + 3 = 13$

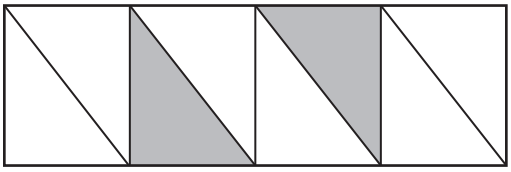
---

9 Amelia shaded $\frac{2}{8}$ of a rectangle. Which rectangle shows $\frac{2}{8}$ shaded?

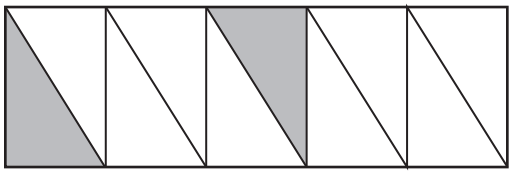
A



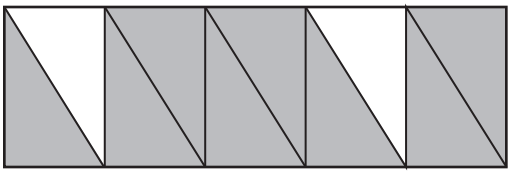
C



B

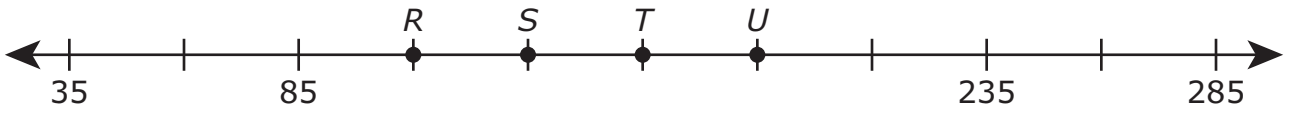


D



GO ON

10 Which point represents 110 on the number line below?



F Point *R*

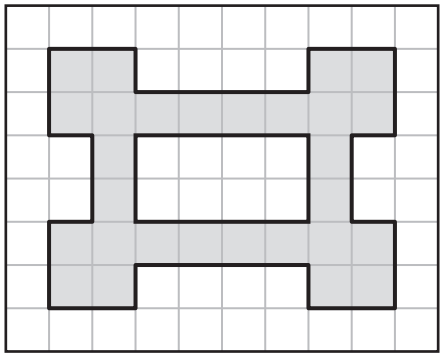
G Point *S*

H Point *T*

J Point *U*

GO ON

11 The shaded design below represents the part of an office floor covered by tiles.



= 1 square meter

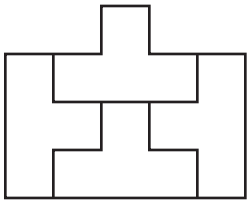
What is the area, in square meters, of the office floor that is covered by tiles?

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

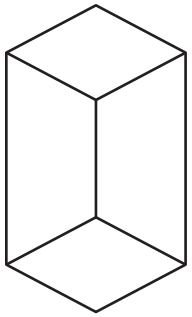
---

12 Which figure appears to be made of 4 congruent sections?

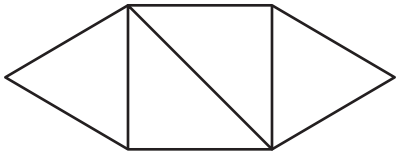
F



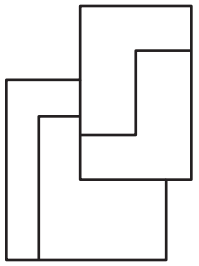
H



G



J



GO ON

13 At a hardware store, Quincy sees ladders with 12 steps, like the one shown below.

If Quincy counts steps in groups of 12, which list shows only numbers he will say?

A 48, 60, 76

B 120, 132, 144

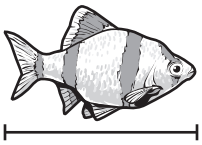
C 96, 104, 112

D 36, 42, 48

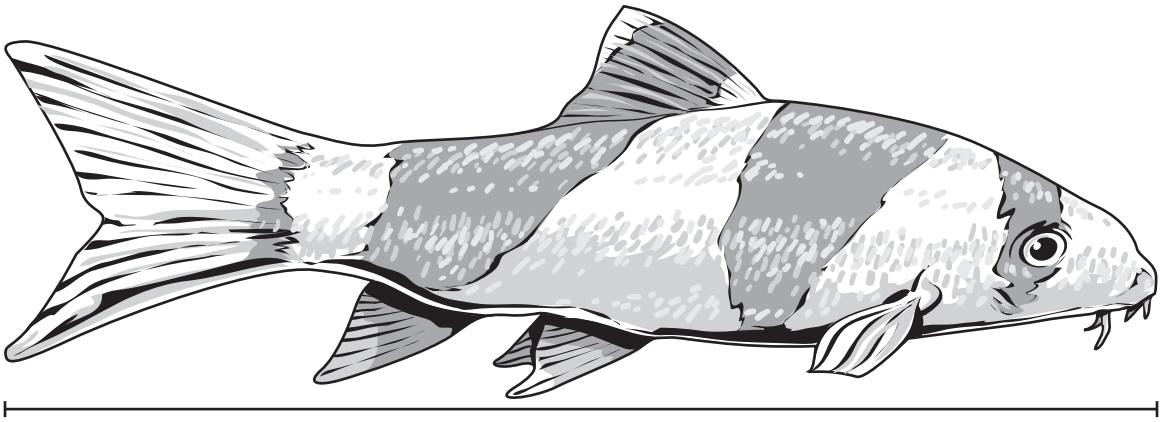
GO ON

14 Kiera has the two fish shown below in a fish tank. Use the ruler provided to measure the length of each fish to the nearest inch.

Tiger Barb



Clown Loach



What is the difference in inches between the lengths of these two fish?

F 6 in.

G 7 in.

H 5 in.

J 4 in.

GO ON

15 There are 27 large T-shirts and 15 small T-shirts in a box. Each T-shirt costs $9. What is the cost of all the T-shirts in the box?

A $378

B $51

C $58

D $458

---

16 The table below shows the number of dog treats in different numbers of bags.

Dog Treats

Number of Bags	Number of Dog Treats
2	4
6	12
13	
20	40
25	50

Each bag contains the same number of dog treats. What is one way to find the number of dog treats in 13 of the bags?

F Find the product of 13 and 3

G Find the difference between 50 and 40

H Find the sum of 4 and 12

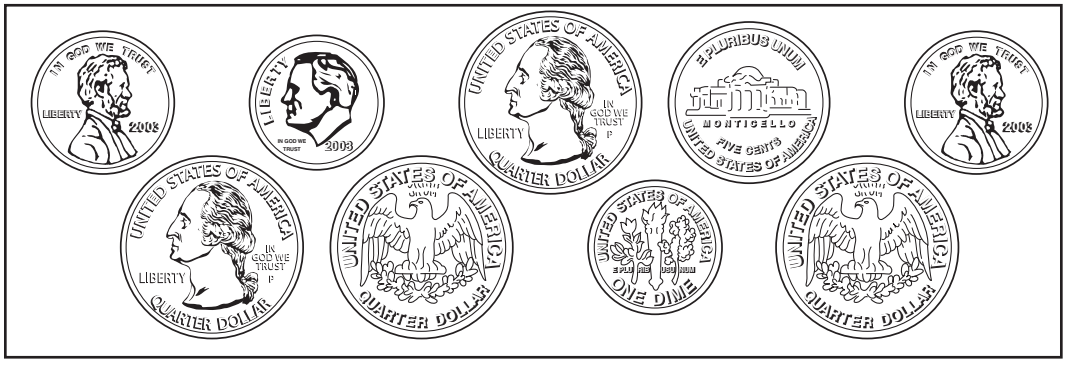
J Find the product of 2 and 13

GO ON

17 Payton has 9 coins that total exactly $1.27. Which set of coins could be Payton's coins?

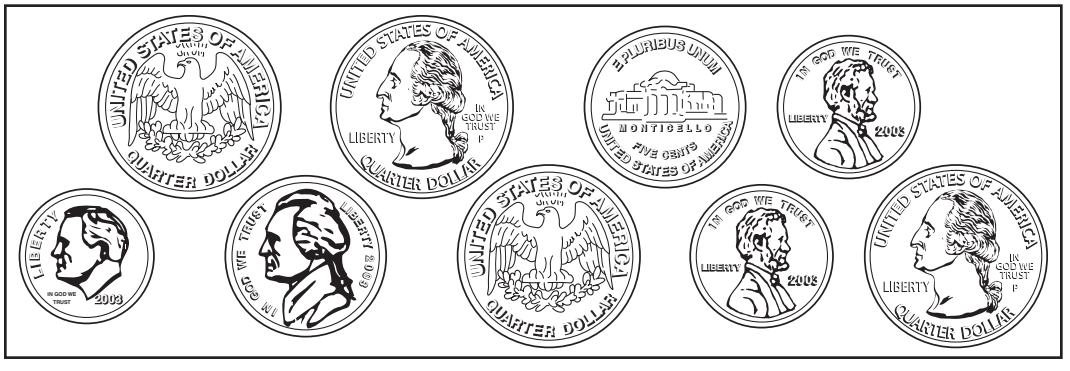
A

B



C

D



GO ON

18 Danielle sorted 48 whistles into 6 equal groups. Which number sentence is **NOT** in the same fact family as $48 \div 6 = 8$?

F $8 \times 6 = 48$

G $48 \div 8 = 6$

H $48 \times 6 = 288$

J $6 \times 8 = 48$

GO ON

19 Jonas has 18 packages of gum that each contain 5 pieces. Jonas gives 16 pieces of gum to his friends. Which number sentence shows one way to find the number of pieces of gum Jonas has left?

A $18 + 16 + 5 = 39$

B $18 \times 5 - 16 = 74$

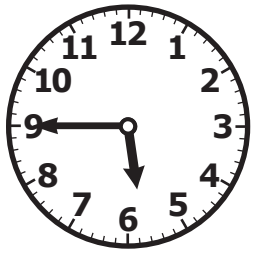
C $18 + 16 - 5 = 29$

D $18 \times 5 + 16 = 106$

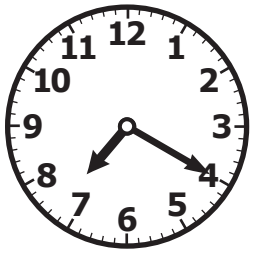
---

20 Quinn volunteers at a hospital every Saturday from 4:35 P.M. to 6:15 P.M. Which clock shows a time when Quinn is volunteering at the hospital?

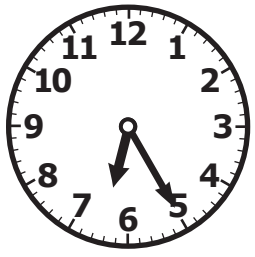
F



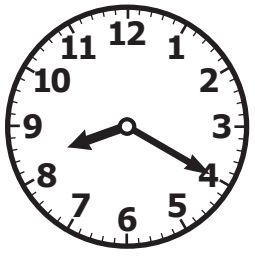
H



G

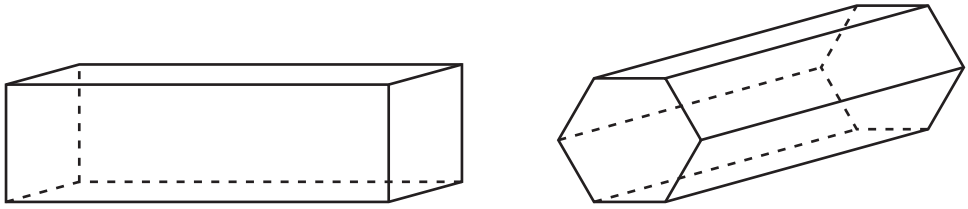


J



GO ON

21 A pair of three-dimensional figures is shown below.



What is the difference between the numbers of edges on these figures?

A 6

B 4

C 12

D 2

---

22 Mrs. Lanier saved $617 in January. In February she spent $249 of the money she had saved. She saved $291 more in March. Which number sentence can be used to find the amount of money Mrs. Lanier had at the end of March?

F $617 + 249 - 291 = \square$

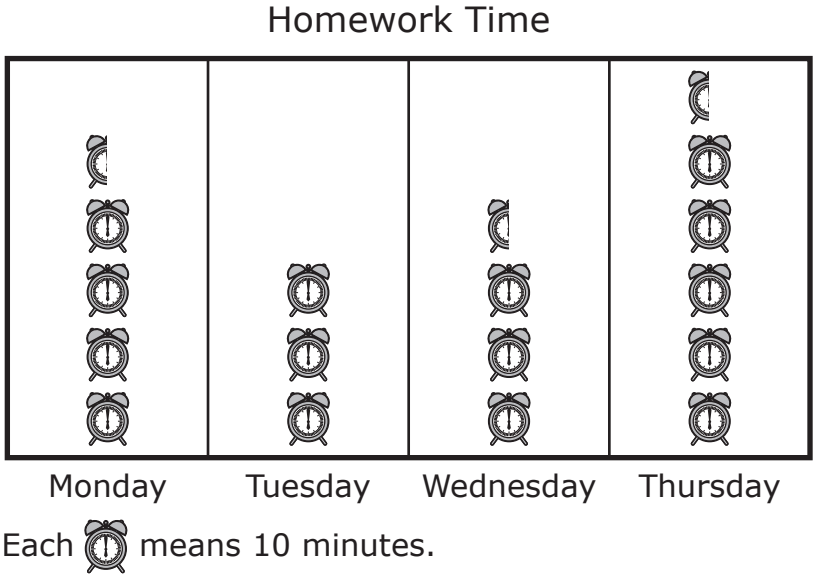
G $617 + 249 + 291 = \square$

H $617 - 249 - 291 = \square$

J $617 - 249 + 291 = \square$

GO ON

23 The graph below shows the number of minutes Ryan spent doing homework during four nights.



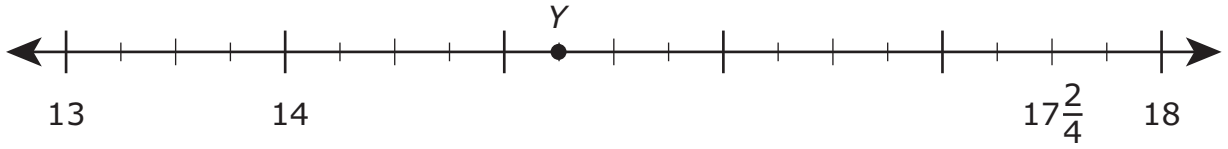
How many minutes did Ryan spend doing homework on Tuesday and Thursday combined?

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

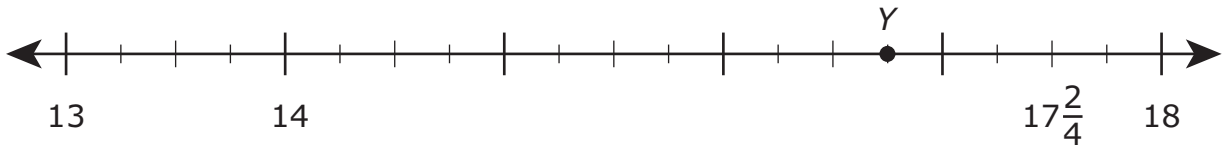
GO ON

24 On which number line below does point *Y* represent $16\frac{1}{4}$?

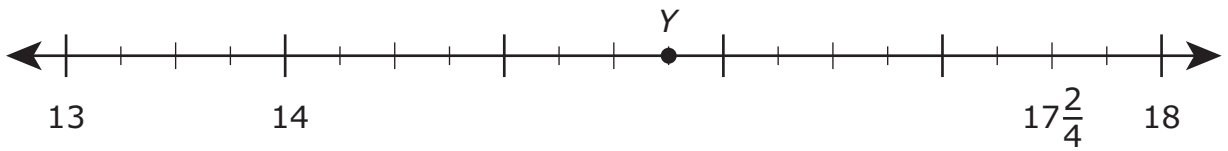
F



G



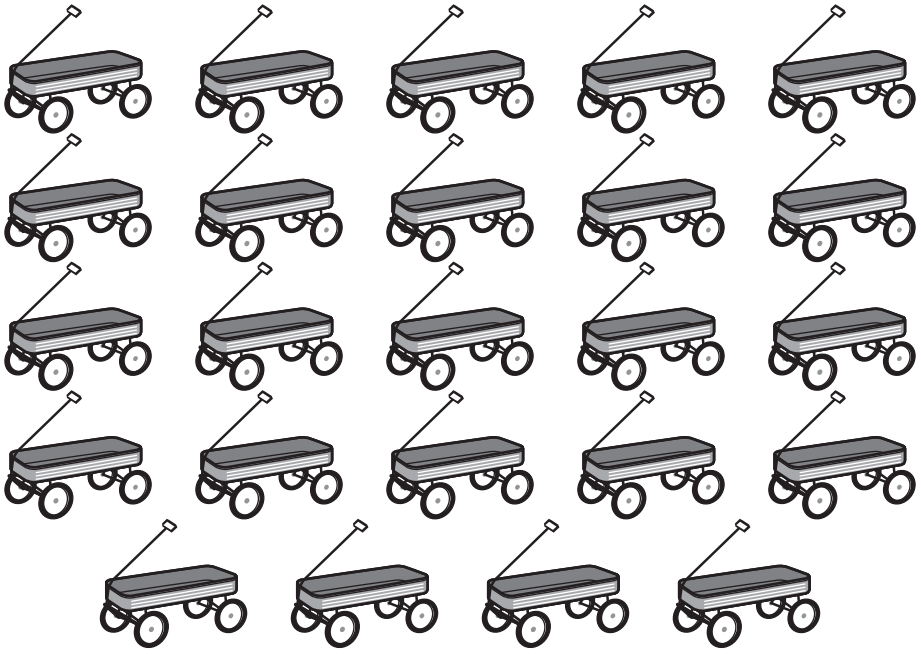
H



J

GO ON

25 The picture below shows the number of wagons at a toy store.



The wagons will be arranged in 2 equal rows. How many wagons will be in each row?

A 6, because $24 \div 4 = 6$

B 2, because $24 \div 12 = 2$

C 12, because $24 \div 2 = 12$

D 8, because $24 \div 3 = 8$

GO ON

26 The pattern of shapes below was created using a rule.

Which pattern of shapes was created using the same rule?

F

G

H

J

GO ON

27 The table below shows the number of towns in five Texas counties.

Texas Counties

County	Number of Towns
Brown	21
Galveston	37
Hill	29
Dallas	72
Montgomery	46

What is the best estimate of the total number of towns in Galveston, Dallas, and Montgomery Counties?

A 300

B 160

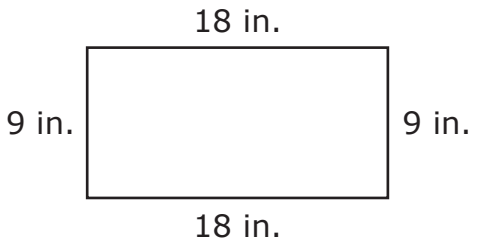
C 140

D 170

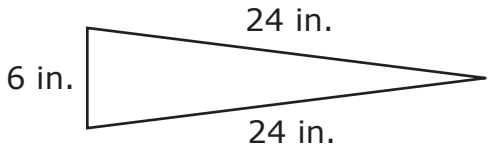
GO ON

28 Steven has a wall decoration with a perimeter of 54 inches. Which figure could **NOT** represent Steven's wall decoration?

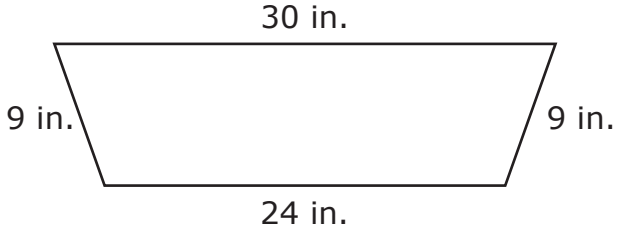
F



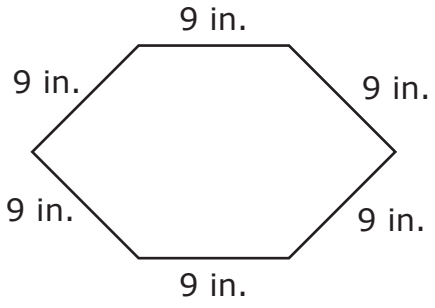
G



H



J



GO ON

29 The table below shows the number of each kind of tree at a school.

Trees at School

Kind of Tree	Number of Trees
Pine	16
Oak	6
Maple	18
Willow	4
Elm	22

Which graph best represents the information in the table?

A

Trees at School

Pine	4
Oak	2
Maple	5
Willow	1
Elm	6

Each 🌳 means 4 trees.

C

Trees at School

Pine	4
Oak	1½
Maple	4½
Willow	4
Elm	5½

Each 🌳 means 4 trees.

B

Trees at School

Pine	4
Oak	1
Maple	4
Willow	1
Elm	5

Each 🌳 means 4 trees.

D

Trees at School

Pine	4
Oak	1½
Maple	4½
Willow	1
Elm	5½

Each 🌳 means 4 trees.

GO ON

30 A group of figures is shown below.

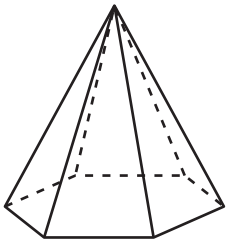


Figure 1

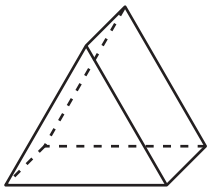


Figure 2

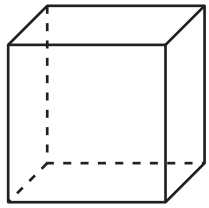


Figure 3

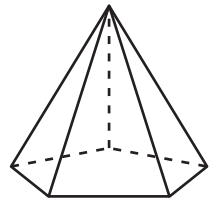


Figure 4

Which 2 figures have the same number of vertices?

F Figures 1 and 3

G Figures 2 and 4

H Figures 3 and 4

J Figures 1 and 2

---

31 In the equations below, each △ represents the same number.

$$\bigcirc + \triangle = 11$$

$$\triangle \times \triangle = 9$$

What is the value of ◯?

A 3

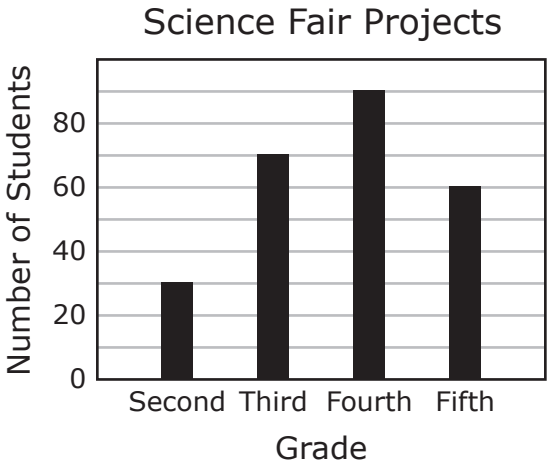
B 2

C 8

D 9

GO ON

32 The graph below shows the number of students at different grade levels who brought projects for a science fair.



Based on the graph, which statement is true?

F A total of 110 students in second grade and fourth grade brought a project.

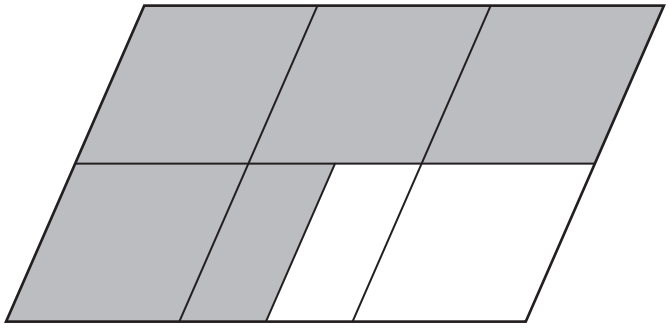
G Exactly 40 fewer fourth-grade students brought a project than third-grade and fifth-grade students combined.

H A total of 220 students in these grades brought a project.

J Exactly 90 fewer third-grade students brought a project than fourth-grade and fifth-grade students combined.

GO ON

33 Isaac divided a figure into 7 pieces and shaded part of the figure as shown below.



Isaac said that $\frac{5}{7}$ of the figure is shaded. Is he correct?

A Yes, because 5 out of 7 pieces are shaded

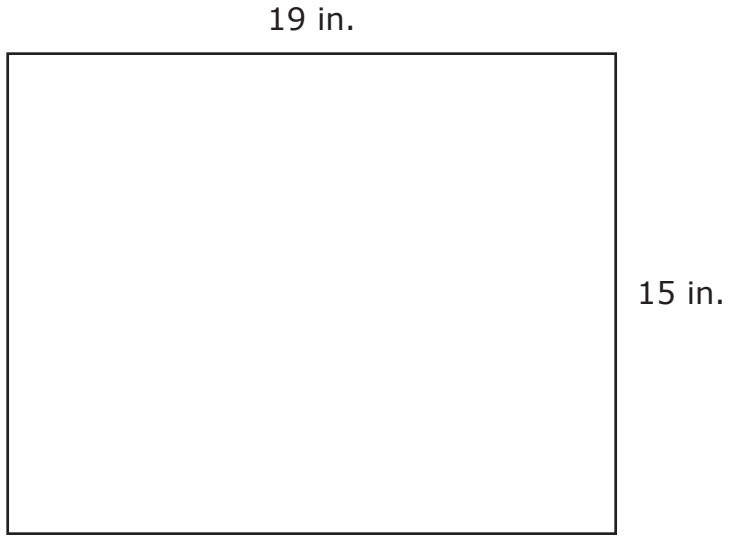
B No, because 2 out of 5 pieces are shaded

C Yes, because 5 equal-size pieces are shaded

D No, because the 5 shaded pieces are not equal in size

GO ON

34 Adam has 60 inches of ribbon. He wants to use the ribbon to make a border around the perimeter of a rectangular picture. The dimensions of the picture are shown below.



Does Adam have enough ribbon to make a border around this picture?

F No, because $19 + 19 + 15 + 15 = 68$, and $68 > 60$

G Yes, because $19 + 15 = 34$, and $60 > 34$

H No, because $19 + 19 + 19 + 19 = 76$, and $76 > 60$

J Yes, because $15 + 15 + 15 + 15 = 60$, and $60 = 60$

GO ON

35 The table below shows the total number of seeds in different numbers of packets at a market.

Seeds

Number of Packets	1	3	4	7
Total Number of Seeds	25		100	175

There are the same number of seeds in each packet. What is the total number of seeds in 3 of the packets?

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

---

36 A group of numbers is shown below.

7,408 7,395 7,492 7,316

Which statement about two of these numbers is true?

F $7{,}408 = 7{,}492$, because $74 = 74$

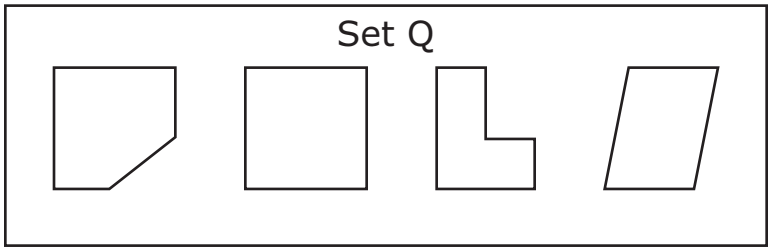
G $7{,}316 > 7{,}408$, because $16 > 8$

H $7{,}492 < 7{,}395$, because $92 < 95$

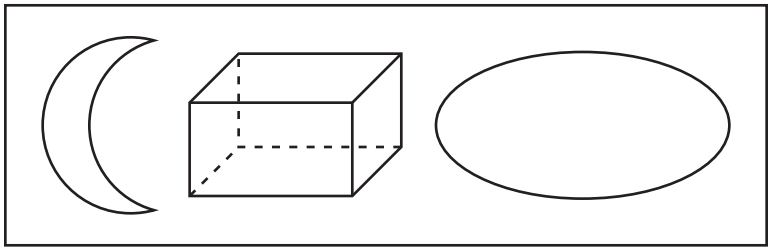
J $7{,}316 < 7{,}395$, because $316 < 395$

GO ON

37 The figures in Set Q share a characteristic.



These figures do not share the characteristic.



Which statement best describes the characteristic shared by the figures in Set Q?

A The figures are all polygons.

B The figures are all quadrilaterals.

C The figures are all pentagons.

D The figures are all hexagons.

GO ON

38 The table below shows the number of coats and sweaters donated during a clothing drive.

Clothing Drive

Day	Coats	Sweaters
Wednesday	83	31
Thursday	58	14
Friday	71	50

What is the difference between the number of coats and the number of sweaters donated during the clothing drive?

F 307

G 127

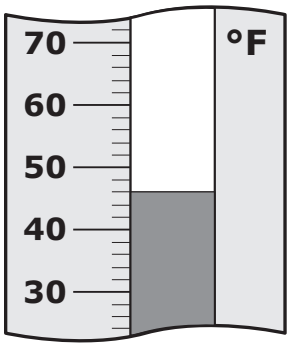
H 117

J 227

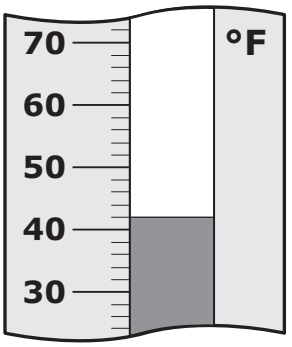
GO ON

39 The low temperature on Monday was 41°F. The low temperature on Tuesday was 43°F. Which thermometer shows the low temperature on Tuesday?

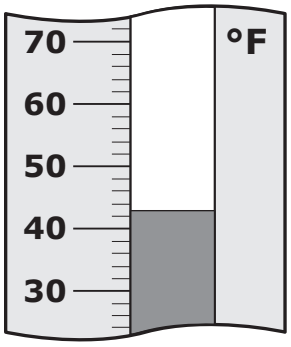
A



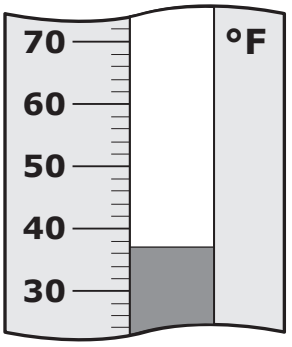
C



B

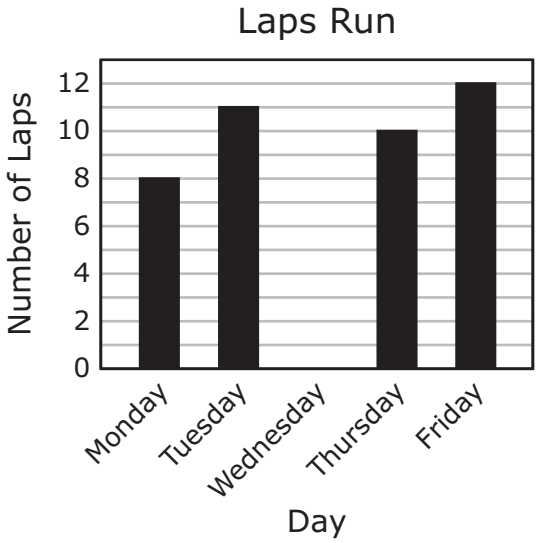


D



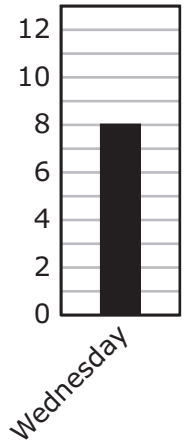
GO ON

40 Wakiko ran laps around her school on five days last week. The graph below shows the number of laps Wakiko ran on some of those days. The bar for the number of laps she ran on Wednesday is missing.

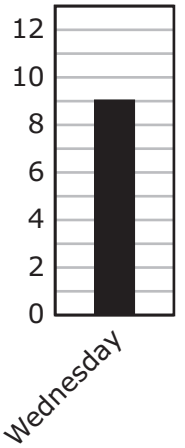


Wakiko ran a total of 50 laps on these five days. Which bar completes the graph?

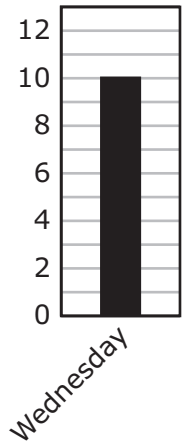
F



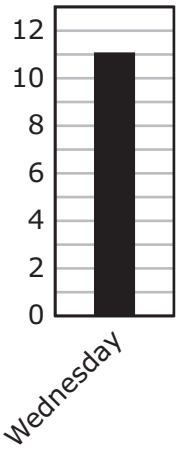
H



G

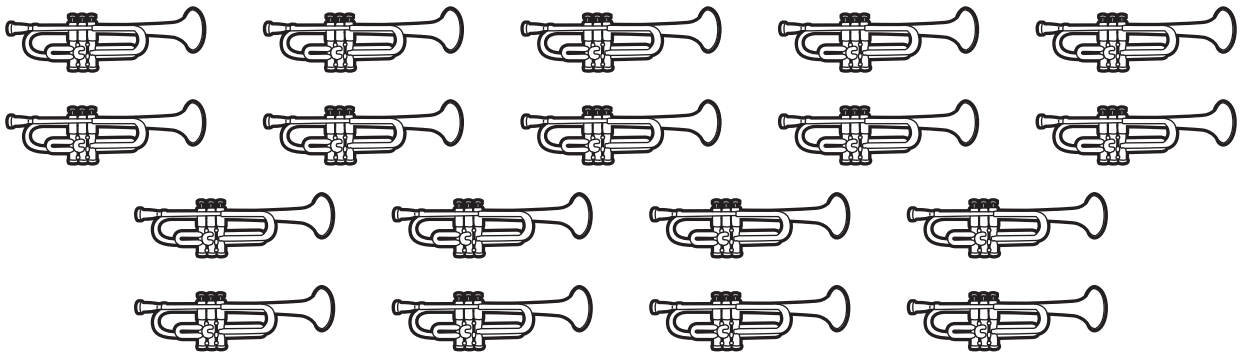


J



GO ON

41 There are 18 trumpets in a music room.



These trumpets will be placed in 3 equal rows. Which number sentence can be used to find the number of trumpets in each row?

A $18 \times 3 = 54$

B $18 \times 2 = 36$

C $18 \div 2 = 9$

D $18 \div 3 = 6$

GO ON

42 Mr. Watkins takes 4 trips every year. Which table shows the total number of trips Mr. Watkins takes in 5, 7, and 12 years?

F

Trips

Number of Years	Total Number of Trips
5	20
7	24
12	28

H

Trips

Number of Years	Total Number of Trips
5	4
7	8
12	12

G

Trips

Number of Years	Total Number of Trips
5	9
7	11
12	16

J

Trips

Number of Years	Total Number of Trips
5	20
7	28
12	48

GO ON

43 The table below shows the number of textbooks for five subjects at a school.

Textbooks

Subject	Number of Textbooks
Math	214
Reading	187
Science	226
Language	208
History	193

What is the total number of math, reading, and language textbooks at this school?

A 609

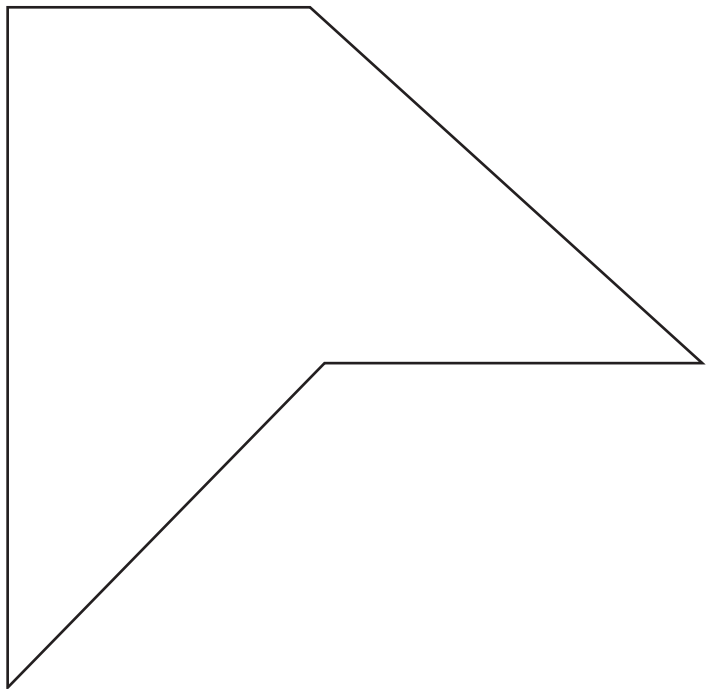
B 1,028

C 699

D 599

GO ON

44 Melinda drew the figure shown below. Use the ruler provided to measure the length of each side of the figure to the nearest centimeter.



What is the perimeter in centimeters of the figure Melinda drew?

F 45 cm

G 31 cm

H 36 cm

J 26 cm

GO ON

45 The table below shows the number of airplanes that landed in different numbers of hours at an airport.

Airport

Number of Hours	Number of Airplanes
2	20
5	50
9	
10	100

The same number of airplanes landed each hour. How many airplanes landed in 9 hours at the airport?

A 80, because $50 + 30 = 80$

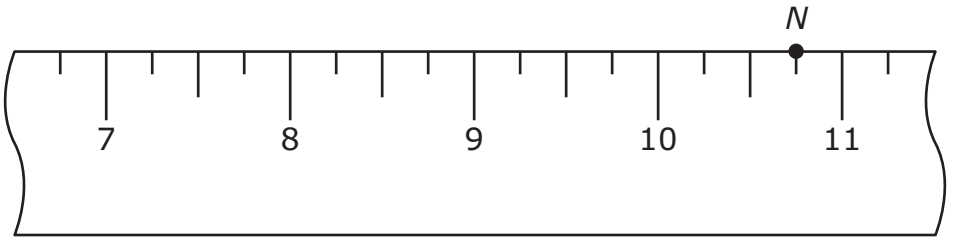
B 45, because $9 \times 5 = 45$

C 90, because $9 \times 10 = 90$

D 50, because $100 - 50 = 50$

GO ON

46 What number does point *N* represent on the ruler below?



F $10\frac{3}{4}$

G $11\frac{1}{4}$

H 11

J $11\frac{3}{4}$

BE SURE YOU HAVE RECORDED ALL OF YOUR ANSWERS ON THE ANSWER DOCUMENT.

STOP

STAAR
GRADE 3
Mathematics
April 2014

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