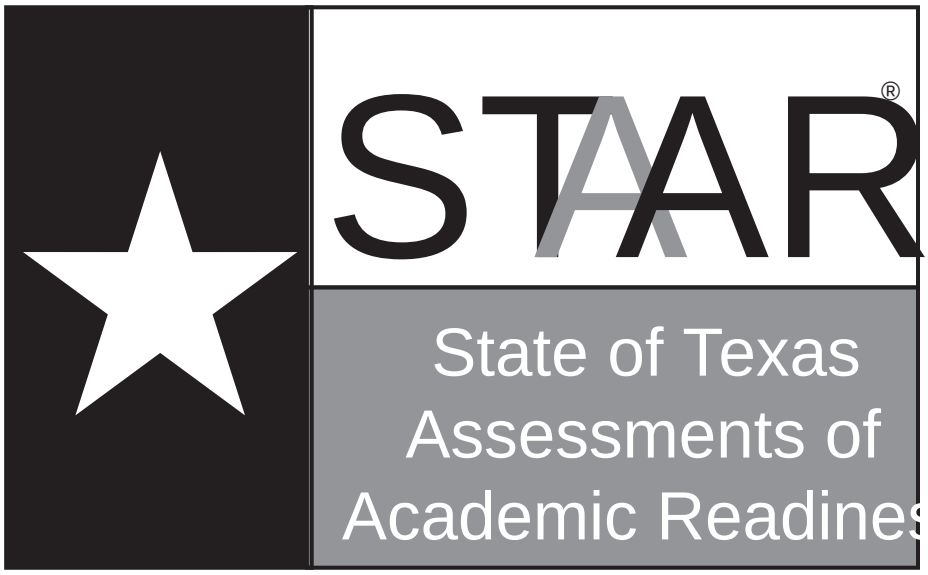


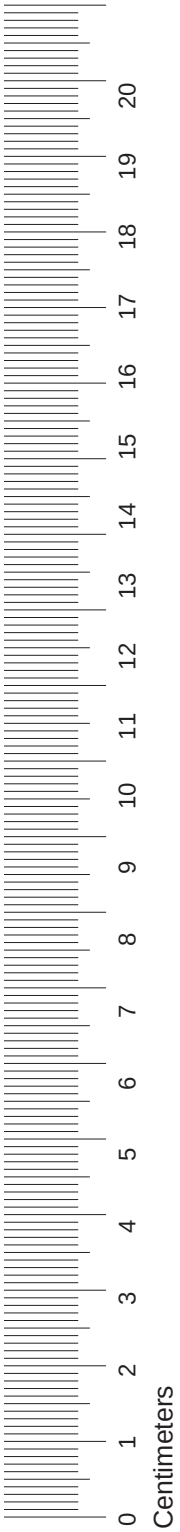
GRADE 6

Mathematics

Administered May 2019

RELEASED

STAAR GRADE 6 MATHEMATICS REFERENCE MATERIALS



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.

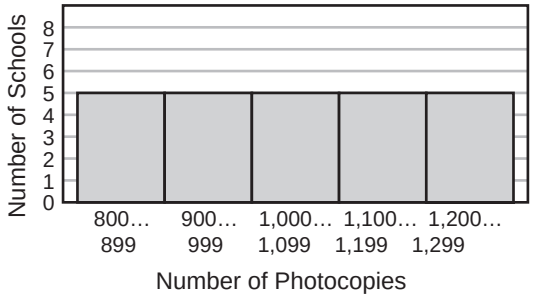
1 The table shows the number of photocopies made during one day at each of the 25 schools in a school district.

Photocopies

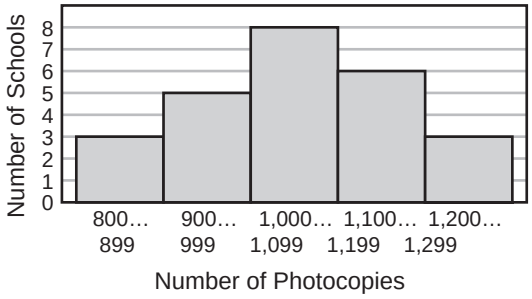
805	805	872	910	919
923	950	989	1,004	1,010
1,020	1,051	1,056	1,085	1,094
1,098	1,108	1,128	1,133	1,150
1,150	1,187	1,209	1,220	1,298

Which histogram displays all the data in the table correctly?

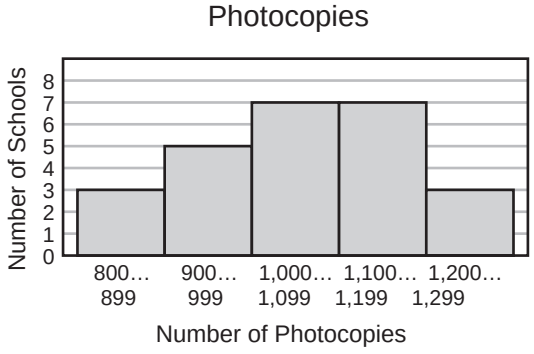
A



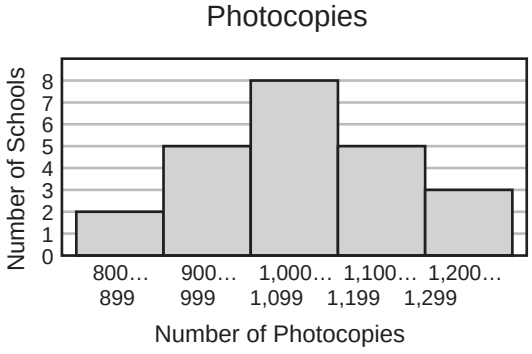
C



B



D



GO ON

3 The expression shown can be used to calculate the amount of money in dollars a grocery store customer should receive in change when paying with $50.

$$50 \quad (14 + 12 + 2(5) + 2(2) + 3)$$

What amount of change in dollars should the customer receive?

A $4

B $26

C $29

D $7

---

4 Which expression is equivalent to (6 p) + 3?

F 3 (6 p)

G 3 + (p 6)

H 6 + 3 p

J 6 (p +

5 A scientist used 786 milliliters of a liquid for an experiment. How many liters of the liquid did the scientist use for this experiment?

A 786,000 L

B 7.86 L

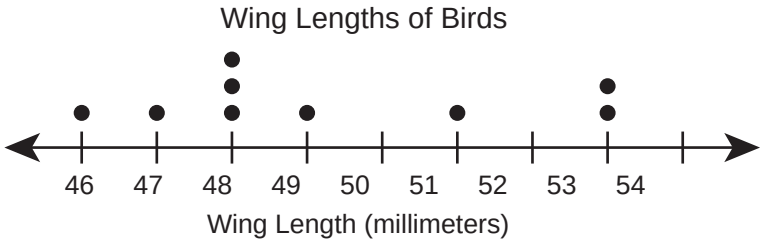
C 0.786 L

D 0.0786 L

6

---

8 The dot plot shows the wing lengths in millimeters for ten birds.



10 What is the value of the expression shown?

$$24 \quad 5^2$$

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

---

11 Which situation can be represented by the equation $y = 12x$?

A Victoria went to school for x years.
This is 12 times y, the number of years her brother went to school.

B Victoria spent x dollars to buy a gift for her brother.
She gave the cashier y dollars and received $12 in change.

C Victoria has y dollars.
This amount is 12 times x, the amount of money in dollars Victoria•s brother has.

D Victoria is y years old.
Her age is 12 years greater than x, her brother•s age in years.

---

12 The weights of four puppies are shown in pounds.

$$9.5 \qquad 9\frac{3}{8} \qquad 9.125 \qquad 9\frac{3}{4}$$

Which list shows these weights in order from greatest to least?

F $9\frac{3}{4}$ 9.5 $9\frac{3}{8}$ 9.125

G 9.5 $9\frac{3}{8}$ $9\frac{3}{4}$ 9.125

H 9.125 $9\frac{3}{8}$ 9.5 $9\frac{3}{4}$

$9\frac{3}{4}$ $9\frac{3}{8}$ 9.5 9.125

8C /LBody <</MCID 17 >>BDC /GS1 gs /T1_1 1 1 2 1248 Tm (3)Tj 8.51 0 Td (3)Tj 0.0055 Tc -12.4 50cbr 02

13 The ratio of the number of boys to the number of girls in a choir is 5 to 4. There are 60 girls in the choir.

How many boys are in the choir?

A 75

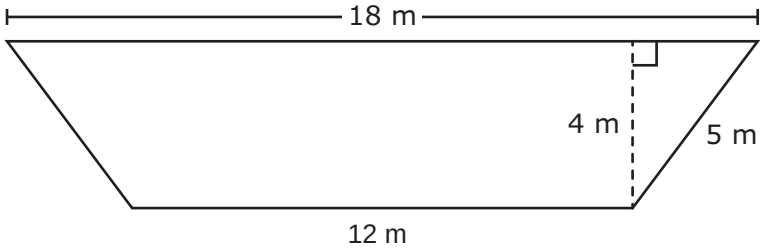
B 61

C 48

D 80

---

14 The dimensions of a lawn shaped like a trapezoid are given in meters.



What is the area of the lawn in square meters?

F 108 m^2

G 60 m^2

H 72 m^2

J 120 m^2

16 Four points are labeled on the number line.

Which point best represents $\frac{1}{3}$?

F Point K

G Point L

H Point M

J Point N

---

17 Ms. Gallegos burns 236 calories riding her bike each hour. She wants to burn more than 590 calories riding her bike at the same rate.

Which inequality represents all possible values for t, the number of hours Ms. Gallegos must ride her bike to burn more than 590 calories?5.685 0 Td (all)Tj /T1_0 1 Tf ( )Tj /T (590)Tj /T1_0 1 T7685 0 Td (all)Tj /

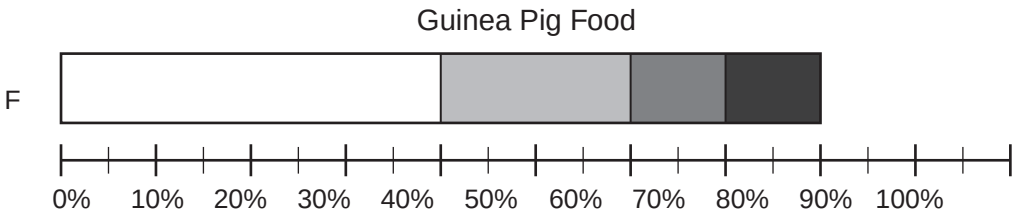
18 On Saturday Kai gave his guinea pig 80 grams of food. The table shows the amount of each type of food he gave to the guinea pig.

Guinea Pig Food

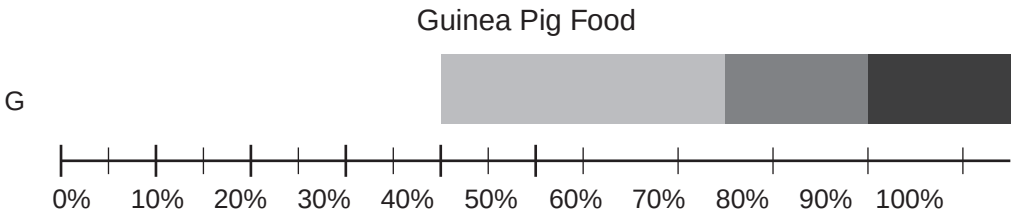
Type of Food	Amount of Food (grams)	Key for Bar Graph
Hay	40	
Alfalfa pellets	20	
Tomatoes	10	
Lettuce	10	

Which percentage bar graph best represents the data?

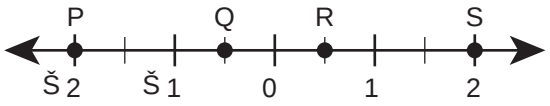
F



G



19 Four points are labeled on the number line.



Which point represents the value of $\left| \frac{1}{2} \right|$?

A Point P

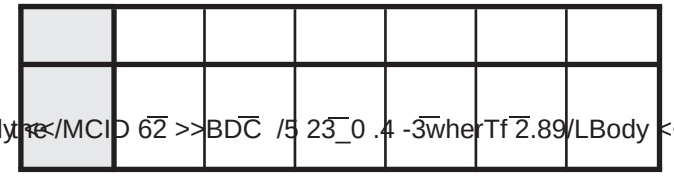
B Point Q

C Point R

D Point S

---

20 The table



,f 2.89/LBody<</MCID 62 >>BDC /5 23_0 .4 -3whenTf 2.89/LBody <</MCID 62T/T1_1 1 Tf21Td ( )9s -6 -1.6-4

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20

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—

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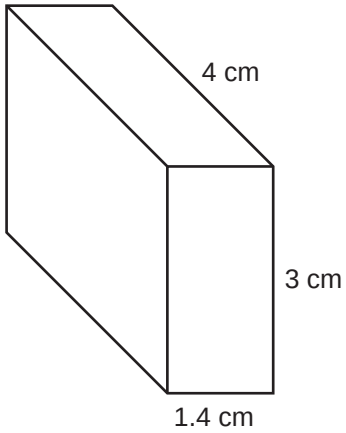
21 The dimensions of the rectangular prism shown are given in centimeters.



What is the volume of the rectangular prism in cubic centimeters?

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

---

22 The weight of one serving of trail mix is 2.5 ounces. How many servings are there in 22.5 ounces of trail mix?

F 11.5

G 25.0

H 56.25

J 9.0

23 Regina writes the expression $y + 9\ \frac{3}{4}$. Which expression is equivalent to the one Regina writes?

A (9 3 ÷ 4) + y

B 9 + y (3 ÷ 4)

C (y + 9)(3 ÷ 4)

D None of these

25 The list shows the numbers of employees in the nine departments at a company.

14, 23, 6, 54, 30, 26, 17, 3, 26

What is the range of the numbers of employees in these departments?

A 23

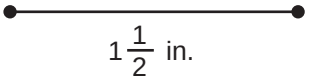
B 51

C 26

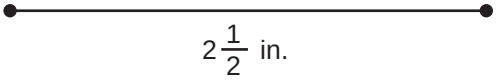
D 18

---

26 The lengths of two line segments are shown.



$1\frac{1}{2}$ in.



$2\frac{1}{2}$ in.

Use the ruler provided to measure the length of a third line segment to the nearest $\frac{1}{2}$ inch.

Which statement is true about these three line segments?

F These line segments can form a triangle, because each side of the triangle can be a different length.

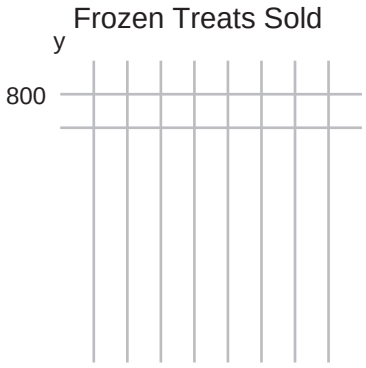
G These line segments can form a triangle, because the longest side of the triangle can be exactly 4 inches long.

H These line segments cannot form a triangle, because at least two sides of the triangle must be the same length.

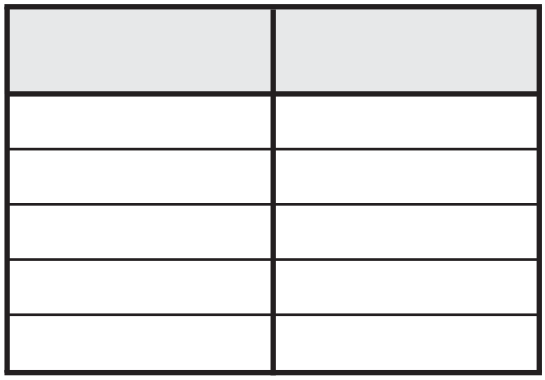
J These line segments cannot form a triangle, because the longest side of the triangle must be shorter than 4 inches.

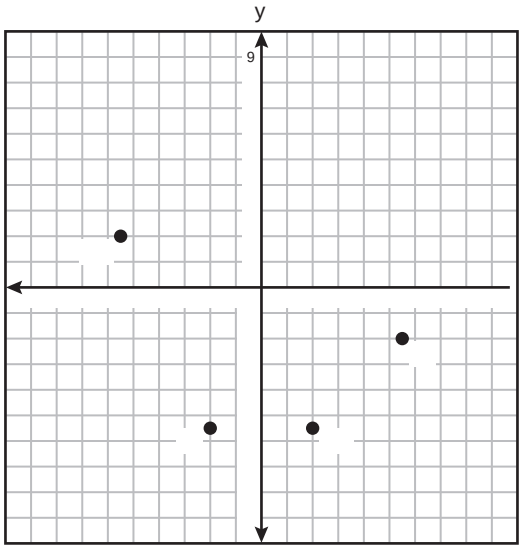
27 The owner of a food cart sells an average of 120 frozen treats per day during the summer.

Which graph best shows this relationship between the number of days and the number of frozen treats sold?



28 Each child in a group was asked to choose a




y
9

35 Which expression is equivalent to $4(3 + 5)\ \ 3\ \ 9^2$?

A 14 81

B 17 $(27)^2$

C 12 + 20 54

D 4(8) 3 81

---

36 What is the value of $\frac{4}{15} \div \frac{2}{3}$?

F $\frac{8}{45}$

G $\frac{14}{15}$

H $\frac{5}{2}$

J $\frac{2}{5}$

GO ON

37 Timothy has a set of plastic squares. The table shows the relationship between A, the area of each square in square centimeters, and s, the side length of each square in centimeters.

Timothy•s Squares

Area, A (square centimeters)	1	4	49	64
Side Length, s (centimeters)	1	2	7	8

Which equation can be used to represent the relationship between A and s for these squares?

A $A = s$

B $A = s \ s$

C $A = 2 + s$

D $A = s + s$

---

38 Riley received financial assistance to pay for his college education. After he graduates, he will have to pay back the amount of money he received plus any interest that accrues after graduation.

Which kind of financial assistance did Riley receive?

F Student loan

G Scholarship

H Work-study

J Savings plan

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

STOP

STAAR
GRADE 6
Mathematics
May 2019