Kentucky Summative Assessments

Kentucky Department of Education

Our Children, Our Commonwealth
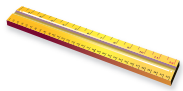
Grade 6 Mathematics
Released Items
2022

1

MA0620058

Brian uses a water hose to fill an empty container with water. The amount of water in the container increases at a constant rate. The relationship between the amount of water in the container and time is shown in the table.
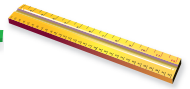
Container

Time (minutes)	0.25	0.5	0.75
Amount of Water (gallons)	0.5	1	1.5

The container can hold a maximum of 12.5 gallons of water.

- After how many minutes will the container begin to overflow?
- Show your work or explain how you determined your answer.

Enter your answer and your work or explanation in the space provided.

MA0620C7_00

Sondra makes beaded jewelry to sell at a craft fair. Sondra made a total of 35 bracelets and 35 necklaces to sell at the craft fair. The table shows the prices she will sell the bracelets and the necklaces for and the cost of the material she paid to make each piece of jewelry.
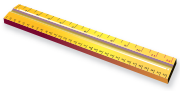
Sondra's Jewelry

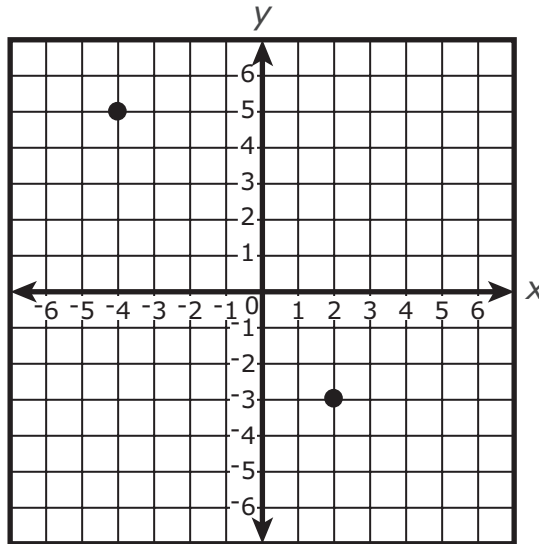|	Sale Price (dollars)	Material Cost (dollars)
Bracelet	4.50	0.75
Necklace	15.30	2.55

2

MA0620C7_02_2

Which equation can be used to represent the relationship between the number of bracelets, b, Sondra makes and the total cost, t, to make the bracelets?

A $b = 0.75t$

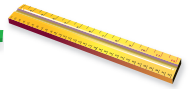**B** $t = 0.75b$

C $b = 0.75 + t$

D $t = 0.75 + b$

GO ON▶

The points shown on the coordinate plane represent two opposite vertices of a rectangle. Each grid line represents 1 unit.

Formulas_6_G_1_3

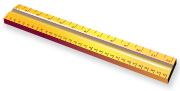| Figure	Area
Triangle	$A = \frac{1}{2} bh$
Rectangle	$A = lw$

GO ON ▶

3

MA0620160_4

What can be concluded about the area, in square units, of the rectangle?

A The coordinates of at least one more vertex are needed to determine the area of the rectangle.

B The coordinates of all four vertices are needed to determine the area of the rectangle.

C The area of the rectangle is 45 square units.

D The area of the rectangle is 48 square units.
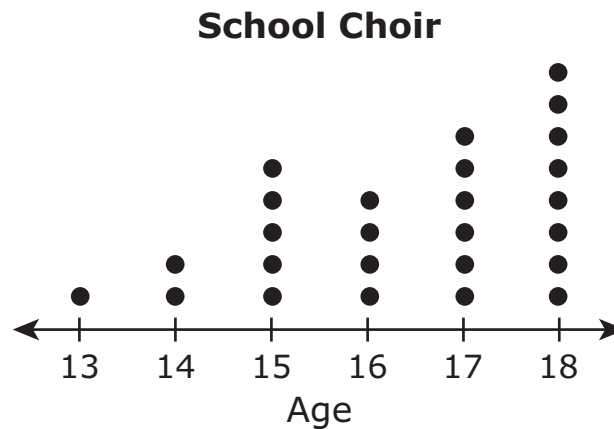
4

MA0620003_2

Jennifer bought 1 pound of chicken for $3. Which situation represents the same unit rate for the type of chicken Jennifer bought?

A 3 pounds of chicken for $6

B 4 pounds of chicken for $12

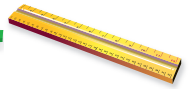**C** 6 pounds of chicken for $2

D 8 pounds of chicken for $10

5

MA0620092_4

The ages of students in the school's choir are recorded on the dot plot shown.

School Choir

Which statement is true about the distribution of ages?

A The distribution of the ages is symmetrical because there are approximately the same number of students for each age.

B The distribution of the ages is symmetrical because the mean and median are both approximately 17.

C The distribution of the ages is skewed right because most of the students are 17 and 18.

D The distribution of the ages is skewed left because most of the students are 17 and 18.

GO ON▶

6

MA0620031_1

The temperature in a city rose from − 13°F at 1 a.m. to 5°F at 2 p.m. Nick and Alex compare the actual temperature at 2 p.m. to the temperature at 1 a.m.

- Nick claims there is an increase in the actual temperatures but a decrease in the absolute value of the temperatures.
- Alex claims there is an increase in the actual temperatures and in the absolute value of the temperatures.

Who is correct, and why?

A Nick is correct because $|5| < |-13|$.

B Alex is correct because $|5| > -|13|$.

C Nick is correct because $-5 < 13$.

D Alex is correct because $5 > -13$.

7

MA0620128_4,3

Which expression has a value between 8 and 9?

Select **two** correct answers.

A $9.049 - 1.051$

B $5.704 + 3.299$

C 2.45×3.4

D $20.6 \div 2.4$

E $30 \div 3.25$

STOP

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