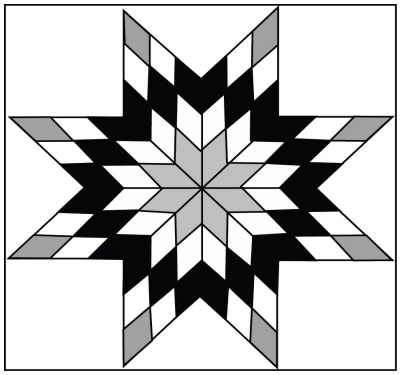
CISD Grade 6 Math Unit 11

GO ON

1 Mr. Garrett's class created a flag for field day using a pattern of parallelograms. For the design, $\frac{1}{9}$ of the parallelograms will form the tips and will be colored red. Which decimal represents this portion of the flag?



A 0.10

B 0.19

C 0.11

D 0.9

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2 Sarah was learning about converting between metric and customary units. She learned that 1 inch is about 2.54 centimeters. Which mixed number is the same as the number of centimeters in an inch?

F $2\frac{5}{4}$

G $2\frac{4}{5}$

H $2\frac{27}{100}$

J $2\frac{27}{50}$

3 Jonathon needed to find the perimeter of a triangular piece of tile for a floor design. The sides of the triangle measure $5\frac{5}{8}$ inches, $4\frac{3}{4}$ inches, and $3\frac{2}{3}$ inches. What is the perimeter of the piece of tile?

A $12\frac{5}{12}$ inches

B $12\frac{2}{3}$ inches

C $13\frac{1}{24}$ inches

D $14\frac{1}{24}$ inches

GO ON

4 The Education Foundation is hosting an annual fundraising dinner. The cost per person to attend is a donation of $350. Each table at the dinner will seat 8 guests. If the Education Foundation dinner sells enough tickets to completely fill 21 tables, how much money will be raised in donations?

F $168

G $2,800

H $7,350

J $58,800

5 Which is the first step in solving the following problem?

$$3 + 18 \div (21 - 12) + 5(7)$$

A Subtract 12 from 21.

B Add 3 and 18.

C Multiply 5 times 7.

D Divide 18 by 21.

6 Carmen drives a freight truck between cities for his job. Carmen's trip times and mileage for last week are shown in the table below.

Day	Length of Trip (hours)	Trip Mileage
Monday	4	250
Tuesday	8	488
Wednesday	6	408
Thursday	5	325
Friday	9	567

On which day was his average rate of speed the highest?

Show your work below for full credit, and explain why your answer is correct.

GO ON

7 When making lemonade to sell at the school picnic, Sam uses 2 teaspoons of mix for every 8 cups of water. To make enough for the guests at the picnic he will need to use 7 gallons of water. How many teaspoons of mix will he use for the lemonade?

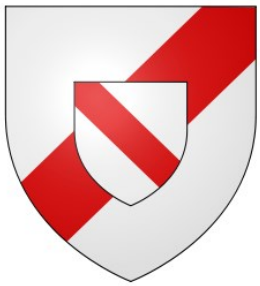
A 14 teaspoons

B 28 teaspoons

C 112 teaspoons

D 224 teaspoons

8 Tom made a historical crest to use on his part of the class project for Open House. The drawing will be enlarged proportionally into a poster to display in the hallway. The dimensions of the drawing are 3 inches wide by 5 inches tall. If the poster will be 18 inches wide, how tall will the poster be?



F 10.8 inches

G 20 inches

H 30 inches

J 33 inches

GO ON

9 Carla made a pattern using blocks as part of her tile mosaic project for Math. Her pattern is shown below.

Figure 1

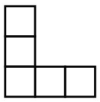


Figure 2

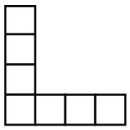


Figure 3

Which of the following best represents the pattern of the number of tiles in the mosaic to the figure number?

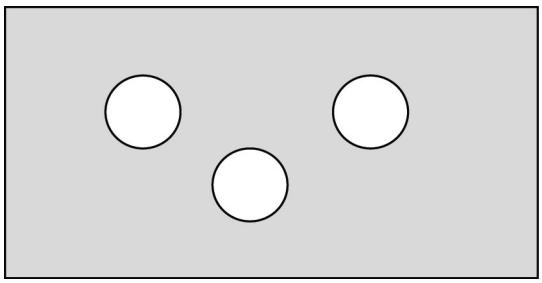
A $3n$

B $n+2$

C n^2+1

D $2n+1$

10 Three identical circles were cut and removed from a 4 ft by 7 ft rectangular, grey carpet.



Which calculation should be used to find the area of the grey carpet still remaining after the holes were cut out?

F First, multiply 4 x 7; then, add the area of one of the circles to that product.

G First, multiply 4 x 7; then, add 3 times the area of one of the circles to that product.

H First, multiply 4 x 7; then, subtract the area of one of the circles from that product.

J First, multiply 4 x 7; then, subtract 3 times the area of one of the circles from that product.

GO ON

11 In Science, students were conducting a lab experiment to determine the number of drops of water that would fill certain containers. The data collected by a group is shown below.

Drops of water	Water volume in mL
120	5
240	10
360	15
x	y

Which proportion could be used to determine how many water drops would be needed to fill a container that is 130 mL?

A $\frac{5}{120} = \frac{130}{x}$

B $\frac{5}{120} = \frac{x}{130}$

C $\frac{5}{130} = \frac{x}{120}$

D $\frac{5}{x} = \frac{120}{130}$

GO ON

12 Which of the following tables correctly shows the relationship between the side length of a square and its perimeter?

F

Side length	Perimeter
1	1
2	4
3	9
4	16
5	25

G

Side length	Perimeter
1	4
2	6
3	8
4	10
5	12

H

Side length	Perimeter
1	4
2	8
3	12
4	16
5	20

J

Side length	Perimeter
1	2
2	4
3	6
4	8
5	10

GO ON

13 Last week, Cierra recorded the time that she spent on homework in the following chart.

Day	Time Began	Time Completed
Monday	4:30 PM	5:05 PM
Tuesday	5:10 PM	6:25 PM
Wednesday	4:45 PM	6:00 PM
Thursday	5:15 PM	6:20 PM
Friday	4:30 PM	5:10 PM

Which is a reasonable estimate of the amount of time that Cierra spent on homework last week?

A between 4 hours and $4\frac{1}{2}$ hours

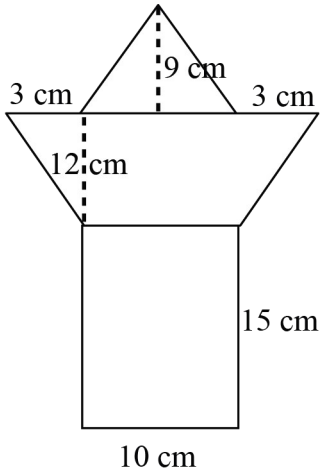
B between $4\frac{1}{2}$ hours and 5 hours

C between 5 hours and $5\frac{1}{2}$ hours

D more than $5\frac{1}{2}$ hours

GO ON

14 Sam constructed a shape using polygons. His shape is shown below.



Sam measured the sections of his design and it will become part of the class mural to be painted at the school. What is the area of Sam's design in square centimeters?

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

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

STOP