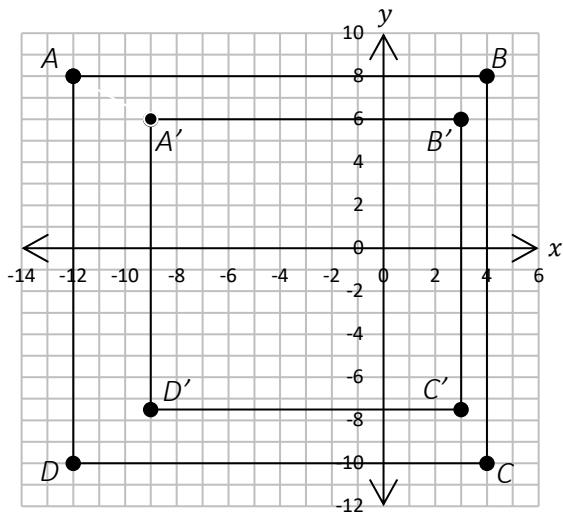


1. Polygon $ABCD$ was dilated to form polygon $A'B'C'D'$.



List the vertex locations of each polygon.

Polygon $ABCD$	
A	
B	
C	
D	

Polygon $A'B'C'D'$	
A'	
B'	
C'	
D'	

What is the dilation factor? _____

Describe algebraically the rule that was applied to polygon $ABCD$ to create polygon $A'B'C'D'$.

$(x, y) \rightarrow (\quad , \quad)$

Describe the corresponding angles.

The perimeter of polygon $A'B'C'D'$ is _____ the perimeter of polygon $ABCD$.

The area of polygon $A'B'C'D'$ is _____ the area of polygon $ABCD$.

TEKS 8.3C

2. A linear relationship is represented by the equation $y = \frac{1}{2}x + 4$. Complete the table for this relationship.

$$y = \frac{1}{2}x + 4$$

Input, x	Output, y
0	
2	
4	
6	

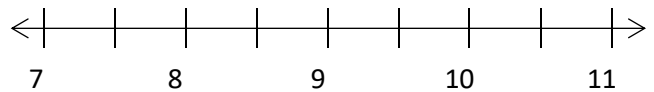
What is the slope or rate of change? _____

What is the y-intercept? _____

TEKS 8.4C

3. Graph the positive value of each square root on the number line below.

$$\sqrt{64} \qquad \sqrt{81} \qquad \sqrt{76}$$



What is the positive square root of each, rounded to the nearest tenth if needed?

- $\sqrt{64} =$ _____
- $\sqrt{81} =$ _____
- $\sqrt{76} =$ _____

TEKS 8.2B

1. The equation of a line is $y = 2x + 14$. If the slope is doubled and the y -intercept is reduced by 5, what will be the new equation?

Equation: _____

TEKS 8.5A

2. Every gallon is equivalent to 8 pints. The total number of pints is defined by the equation $p = 8g$, where p represents the total pints, and g represents the number of gallons. What type of function is this?

Proportional OR Non-Proportional

Page 1 of 90 Samples

TEKS 8.5H

3. The number of gallons, g , of water used to wash dishes in a dishwasher is directly proportional to the number of times the dishwasher is used. It requires 84 gallons of water to wash six loads of dishes, d . How many gallons of water will be used to wash 9 loads of dishes?



g , number of gallons = _____

TEKS 8.5E

4. Six numbers are listed below. Write the numbers in the template.

$-1\frac{1}{4}$, 1.45, -1.5 , 15%, $-1\frac{4}{5}$, 1.2

Greatest	
↓	
↓	
↓	
↓	
↓	
Least	

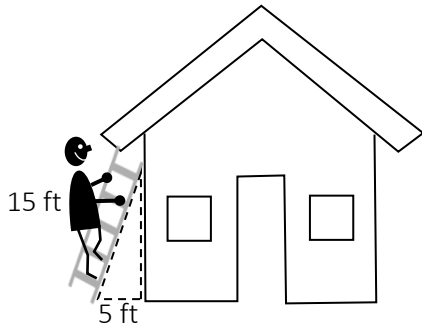
TEKS 8.2D

Calculator Data Entry - Simplify.

$$\frac{12.5 + 6.2 + 7.24 + 9}{2} = \underline{\hspace{2cm}}$$

$$\frac{0.8 + 20.7 + 4.08 + 1}{3} = \underline{\hspace{2cm}}$$

1. A 15-foot ladder leans against the side of a house. The base of the ladder is 5 feet from the base of the house. How far up the side of the house does the ladder reach? (Round to the nearest tenth.)



The ladder reaches _____ feet up the side of the house.

TEKS 8.7C

3. Ella earns \$7.50 per hour baby-sitting, plus a \$20 travel fee. Desiree earns \$9.50 per hour walking dogs, plus a \$12 supply fee. How many hours must the girls work to earn an equal amount of money? What is the amount they will earn at that point in time?

$$7.5x + 20 = 9.5x + 12$$

Ella	$7.5x$	20
------	--------	----

Desiree	$9.5x$	12
---------	--------	----

Number of Hours: _____

Amount Earned: _____

TEKS 8.8C

2. Farmer Joe is collecting data on the number of insects that are found in different test plots of cotton. Each test plot covers one square yard. He recorded the number of insects counted on the chart below with each square representing a different test plot.

12	2	5	9
1	13	7	
5	4		2
	6	3	11

Based on these results, what is the average number of insects that Farmer Joe can expect to find in any random test plot?

Expectation: _____

TEKS 8.11C

4. Michelle invested \$5000 in an account paying 4% simple interest annually. Patrick invested \$5000 into an account that pays 4% interest compounded annually. Determine who will earn the most money at the end of 10 years, and what is the difference rounded to the nearest dollar?

Simple Interest Michelle Earned	Compound Interest Patrick Earned

_____ will earn the most money.

The difference in interest earnings will be _____.

TEKS 8.12D

24. Which of the following is an example of a proportional relationship?
- (A) Every gallon is equivalent to 16 cups. The total number of cups is defined by the equation $c = 16g$, where c represents the total cups, and g represents the number of gallons.
- (B) The area of a square can be determined using the formula $a = s^2$, where a represents the total area, and s represents the side length of the square.
- (C) Tickets to a concert sell for \$27.50 each. Parking for each vehicle is \$15.00. The total cost to attend is defined by the equation $c = 27.5t + 15$, where c represents the total cost and t represents the number of tickets purchased.
- (D) Ted is a truck driver. He drove 450 miles before noon, and 215 miles after noon. The total distance Ted traveled is defined by the equation $t = 450 + 215$, where t represents the total distance.

TEKS 8.5H

25. Which of the following could be side length measurements of a right triangle?

Select **TWO** correct answers.

- 1, 2.4, 2.6
- 12, 16.8, 18.2
- 8, 10, 12.5
- 1.2, 1.6, 2

TEKS 8.7C

26. Fido is a dog. The veterinarian put Fido on a diet, and he lost the same amount of weight for three weeks in a row. The table shows Fido's progress.

Choose the correct answer from each drop-down menu to complete the statement.

The y-intercept in this situation is _____,

- 22
- 1.5
- 0

and represents Fido's _____.

- weight loss each week.
- weight gain each week.
- original weight.

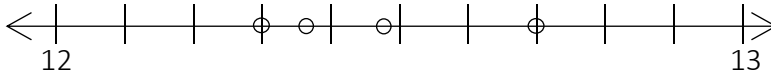
Fido's Progress

Number of Weeks, x	Fido's Weight (lbs.) y
0	22
1	21.5
2	21
3	20.5

TEKS 8.4C

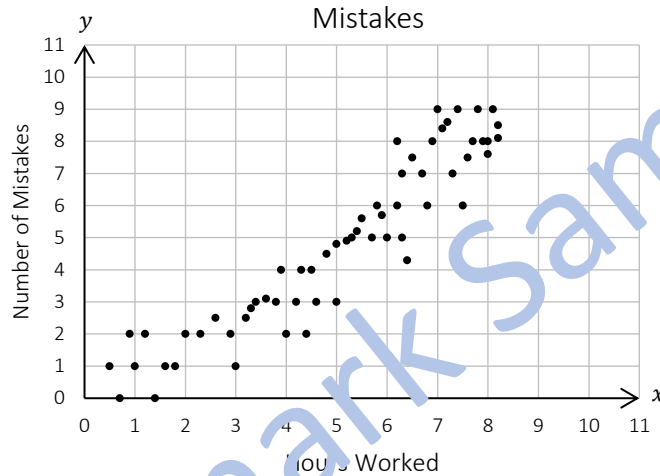
6. Which point on the number line represents the closest approximate value of $\sqrt{153}$?

Select **ONE** location on the number line to plot the point.



TEKS 8.2B

7. The scatterplot below shows the number of mistakes made by factory workers based on the number of hours worked in a single day.



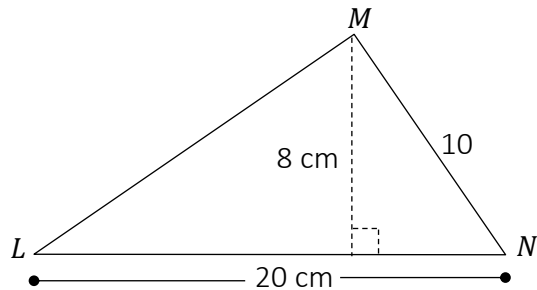
Based on the scatterplot, how many mistakes will a worker expect to make if he/she works 10 hours?

- Ⓐ 6
- Ⓑ 8
- Ⓒ 10
- Ⓓ 12

TEKS 8.5D

8. Triangle LMN is shown below. What is the length of \overline{LM} to the nearest tenth of a centimeter?

Enter your answer in the box provided.



TEKS 8.7C