

Warm Up

5/29/19

#38 - 44 on Released EOC

38 This is a paper/pencil copy of an online technology enhanced item.

Place (click and drag) one option from each of the lists below into its corresponding box to create an equation of the line that passes through the point $(1, -10)$ and is perpendicular to

$$y = -\frac{1}{3}x + 5.$$

$$m=3$$

1	2	3
$3x$	$-$	13

$$y + 10 = 3(x - 1)$$

1	2	3
$-\frac{1}{5}x$	$+$	1
$-\frac{1}{3}x$	$-$	5
$3x$		10
$5x$		13

$$\begin{array}{r} y + 10 = 3x - 3 \\ -10 \quad -10 \\ \hline y = 3x - 13 \end{array}$$

39 Two functions are shown below.

$$f(x) = 3x + 7$$

$$g(x) = 2x + 12$$

What is the value of x where the graphs of $f(x)$ and $g(x)$ intersect?

A -22

B -5

C 5

D 22

40 Marcus measured the height, in inches, y , of plants over the course of 3 weeks. The correlation coefficient between the number of days, x , and the height of the plants is 0.85. Which could be concluded based on the correlation coefficient of the data?

- A There is a strong relationship showing that as the number of days increases, the height of the plants increases.
- B There is a strong relationship showing that as the number of days increases, the height of the plants decreases.
- C There is a weak relationship showing that as the number of days increases, the height of the plants increases.
- D There is a weak relationship showing that as the number of days increases, the height of the plants decreases.

41 A function is shown below.

$$g(x) = 19.60 + 1.74x$$

What is the value of $g(30)$?

$$19.6 + 1.74(30)$$

$$71.8$$

42 The table below shows the weights of 8 different bears at a zoo.

Type of Bear	Weight (pounds)
Asiatic Black Bear	225
Black Bear	300
Brown Bear	550
Panda Bear	200
Polar Bear	1,000
Sloth Bear	300
Spectacled Bear	280
Sun Bear	100

$$\bar{x} = 369$$
$$\text{Med} = 290$$

Without Polar B.

$$\bar{x} = 279$$
$$\text{Med} = 280$$

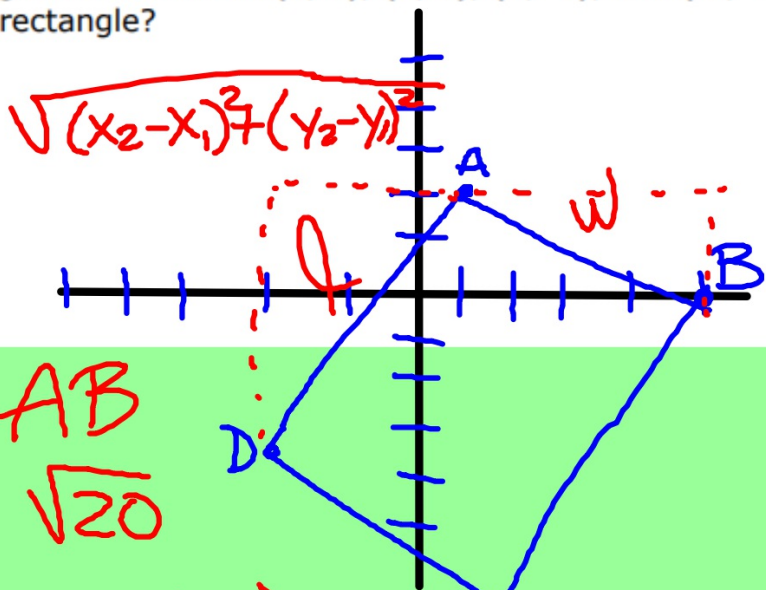
$$\bar{x} \downarrow 110$$
$$\text{Med} \downarrow 10$$

If the weight of the polar bear is removed, which statement is true?

- A The mean decreases more than the median because the polar bear is a high outlier.
- B The mean decreases less than the median because the polar bear is a high outlier.
- C The mean decreases more than the median because the high value balances the low value.
- D The mean decreases less than the median because the high value balances the low value.

43 The vertices of a rectangle are located at (1, 2), (5, 0), (2, -6), and (-2, -4). What is the area of the rectangle?

- A 20 square units
- B 30 square units
- C 35 square units
- D 45 square units



$$DA \\ \sqrt{45}$$

$$AB \\ \sqrt{20}$$

$$\text{Area} = \sqrt{45}(\sqrt{20})$$

44 This is a paper/pencil copy of an online technology enhanced item.

Select (click) each situation that can be modeled with a linear function.

SLOPE

- ✓ A taxi charges an initial fee of \$2.00, and \$1.50 for each additional mile.
- The population in a town decreases by 15% each year. EXPO
- ✓ An airplane flying at an altitude of 33,000 feet descends at a rate 20 feet per minute.
- ✓ A pizza restaurant charges \$5.50 per pizza, and \$0.50 for each additional topping.
- A cell doubles in size every 2 hours. EXPO