Algebra Review #37 SHOW HOW YOU SOLVED EACH PROBLEM

1. Looking at the steps shown below, answer the following questions.

Given:
$$3(x - 2) = 17$$

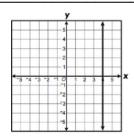
(1st step) $3x - 6 = 17$
(2nd step) $3x = 23$
(3rd step) $x = \frac{23}{3}$

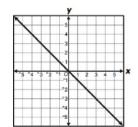
What property justifies Step 1?

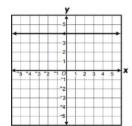
What property justifies Step 2?

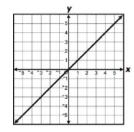
What property justifies Step 3?

2. Identify if the graph has a positive, negative, undefined or zero slope.









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4. This table of ordered pairs contains elements of a function of x.

Which equation could define the function?

a)
$$y = -5x + 11$$

b)
$$y = (x-2)^2 + 7$$

c)
$$y = (x-3)^2 + 2$$

d)
$$y = -2x + 11$$

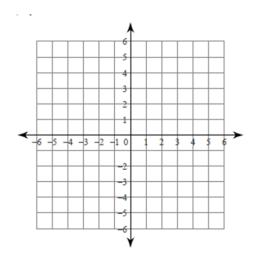
X	y
0	11
1	6
2	3
3	2
4	3

5. What are the x and y intercepts of the line represented by the equation -2y = x - 1?

X-Intercept:

Y-Intercept:

6. Graph x - y = 2 on the graph provided below.



What is the slope?

What is the y-intercept?

- 7. If y varies directly as x and y=30 when
- x=10, what is the constant k?

8. Simplify the radical.

$$\sqrt{75mh^5}$$

9. Simplify:

$$2ab(5ab^4)^2$$

10. Graph the inequality shown:

$$y \leq 5 - x$$

