

LT #1: Relations & Functions

Use the following relation for questions 1 and 2:  $\{(3,5), (7,14), (2,4), (3,6)\}$

1. What is the range of the relation above? (1 Point)
2. Is the relation a function? Justify your answer in sentence form. (2 Points)
3. Given  $f(x) = -x^2 + 4x$ , find  $f(-2)$ . Show all work for credit. (1 Point)

$$\begin{aligned} f(-2) &= -(-2)^2 + 4(-2) \\ &= -4 - 8 \\ &= -12 \end{aligned}$$

1. R: {4, 5, 6, 14}

2. Please circle one:  
Yes  No

Justification: 3 goes to 2 values in the range

3. -12

/4

**LT #2: Direct Variation**

4. Is the equation  $\frac{xy}{x} = 2$  is an example of direct variation? (1 pt)

$$y = \frac{2}{x}$$

5. If y varies directly as x, and y = -2 when x = 1, find y if x = 5.

Show all work for full credit. (3 Points)

$$\frac{-2}{1} = \frac{y}{5}$$

$$-10 = y$$

4. Please circle one:

Yes

No

5.  $y = -10$

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