1.1	D	1	D
Unit:	Katios	ana	Proportions

Name:

Lesson 5: Direct Variation with Equations

Hour:

## Solve for 4= KX+0 Direct Variation from an Equation

1. 
$$y + 1 = 2x$$

$$y = 2x - 1$$







Tell whether x and y show direct variation.

1. 
$$y-x = 4$$

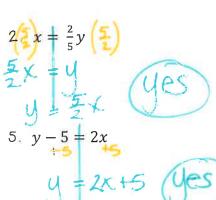
$$y = x+4$$
NO

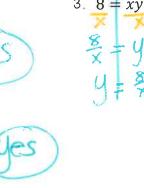
$$4y \frac{x}{y} = 2(y)$$

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

$$\frac{1}{2} \times \frac{y}{2} = \frac{y}{2}$$

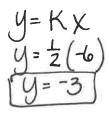






## Solving and Writing Direct Variation Equations

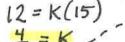
- 1. Constant of Proportionality: \frac{1}{2} x = -6, y = ?
- 2. Constant of Proportionality: 4 x = ?, y = 6

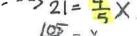




Suppose y varies directly with x. If y = 3 and x = 15, then find x when y = 5.  $3 = K(15) - - - > 5 = 5 \times 25 = X$   $5 = K - - - > 5 = 5 \times 25 = X$ 

4 Suppose x and y are directly proportional. If x = 10 and y = 12, find x when y=21.







y=KX

$$-7 = K(-14)$$
  $--7 = 10 = \frac{1}{2} \times \Rightarrow 20 = x$