

T-MF Math Fundamentals Week 24 3/14

Determine whether each is proportional. $y = kx$
 Give equation if appropriate

X	y	$k = \frac{y}{x}$
→ 2	5	$\frac{5}{2}$
→ 6	15	$\frac{15}{6} \div 3 = \frac{5}{2}$
→ 8	20	$\frac{20}{8} \div 4 = \frac{5}{2}$
→ 12	30	$\frac{30}{12} \div 6 = \frac{5}{2}$

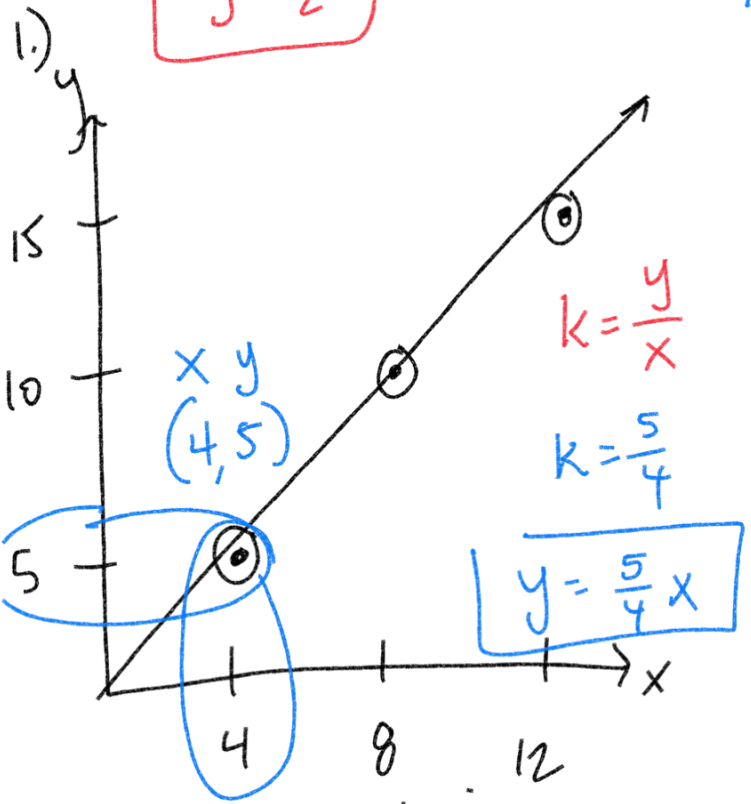
$y = \frac{5}{2}x$

X	y	$k = \frac{y}{x}$
10	8	$\frac{8}{10} \div 2 = \frac{4}{5}$
6	4	$\frac{4}{6} \div 2 = \frac{2}{3}$
4	2	
12	10	

Not proportional

X	y	$k = \frac{y}{x}$
-3	6	$\frac{6}{-3} = -2$
4	-8	$\frac{-8}{4} = -2$
6	-12	$\frac{-12}{6} = -2$
-9	18	$\frac{18}{-9} = -2$

yes!
 $y = -2x$



Find equation

2.) $\frac{75}{36} = \frac{75}{100} \cdot \frac{(36)(75)}{100} = 27$

3.) $\frac{80}{45} = \frac{80}{100} \cdot \frac{(45)(80)}{100} = 36$

4.) $\frac{25}{24} = \frac{25}{100} \cdot \frac{(24)(25)}{100} = 6$

Convert percent into a decimal

per · cent
↓ ↓
for every 100

/ 100

%

34% = $\frac{34}{100} = \boxed{0.34}$
for science!

45% = $\boxed{0.45}$.45

289% = $\boxed{2.89}$

663% = $\boxed{6.63}$

1.) 23% = $\boxed{0.23}$

2.) 87% = $\boxed{0.87}$

3.) 151% = $\boxed{1.51}$

4.) 1286% = $\boxed{12.86}$

5.) 5% = $\boxed{0.05}$

What is 150% of 160?

↓

↓

↓

↓

↓

= 1.50

*

160

= $\boxed{240}$

1.) What is 200% of 139?
↓ ↓ ↓ ↓ ↓
= 2 * 139 = $\boxed{278}$

2.) What is 25% of 112?
↓ ↓ ↓ ↓ ↓
= 0.25 * 112 = $\boxed{28}$

3.) What is 10% of 170?
↓ ↓ ↓ ↓ ↓
= 0.10 * 170 = $\boxed{17}$

4.) What is 125% of 184?
↓ ↓ ↓ ↓ ↓
= 1.25 * 184 = $\boxed{230}$

1.) What is 6% of 35.71?
↓ ↓ ↓ ↓ ↓
= 0.06 * 35.71 = $\boxed{2.1426}$

2.) What is 8% of 6.34?
↓ ↓ ↓ ↓ ↓
= 0.08 * 6.34 = $\boxed{0.5072}$

3.) What is 1% of 26.77?
↓ ↓ ↓ ↓ ↓
= 0.01 * 26.77 = $\boxed{0.2677}$

Nate ate 68 cookies on Monday.

If he ate 25% more cookies on Tuesday, how many did he eat?

$$68 + (25\% \text{ of } 68)$$

$$68 + (0.25 * 68)$$

$$68 + 17 = \boxed{85}$$

original * (1 + % increase)

$$68 * 1.25 = \boxed{85}$$

Increase $\rightarrow +1$
to %

increase of 25%

* 1.25

At the start of the school year, 80 students respected Nate. By now, that number has decreased by 90%.

At this moment, how many students respect Nate?

$$80 - (90\% \text{ of } 80)$$

$$80 - (0.90 * 80)$$

$$80 - 72 = \boxed{8}$$

original
 \downarrow
 $80(1 - \% \text{ decrease})$

$$80(1 - 0.9)$$

$$80(0.1) = \boxed{8}$$

