TH-MF Math Fundamentals 3/24

1.)

x	y
2	4
5	10
8	16
10	20

$*2$

k $\quad y = kx$

$\frac{4}{2} = 2 \quad y = 2x$

$\frac{10}{5} = 2$

$\frac{16}{8} = 2 \quad k = \frac{y}{x}$

$\frac{20}{10} = 2$

proportional

2.)

x	y
1	4
2	5
6	9
11	14

$*4$

$k = y/x$

$4/1 = 4$

$5/2 \neq 4$

not proportional

3.)

x	y
4	6
8	12
-10	-15
-12	-18

$k = y/x$

$\frac{6 \div 2}{4 \div 2} = \frac{3}{2}$

$\frac{12 \div 4}{8 \div 4} = \frac{3}{2}$

$\frac{-15 \div -5}{-10 \div -5} = \frac{3}{2}$

$\frac{-18 \div -6}{-12 \div -6} = \frac{3}{2}$

$y = kx$

$k = \frac{3}{2}$

$$\boxed{y = \frac{3}{2}x}$$

4.)

x	y
2	0
4	2
6	4
8	6

$*\frac{1}{2}$

$k = y/x$

$0/2 = 0$

$\frac{2 \div 2}{4 \div 2} = \frac{1}{2}$

$\frac{4 \div 2}{6 \div 2} = \frac{2}{3}$

not proportional

1.)

x	y	$k = y/x$
-2	-12	$\frac{\cancel{-}12}{\cancel{-}2} = 6$
0	0	
1	6	$\frac{6}{1} = 6$
3	18	$\frac{18}{3} = 6$

$y = 6x$

$k = 6$

2.)

x	y	k y/x
3	5	$5/3$
6	10	$10/6 \div 2 = \frac{5}{3}$
9	15	$15/9 \div 3 = \frac{5}{3}$
12	20	$20/12 \div 4 = \frac{5}{3}$

$y = kx$

$y = \frac{5}{3}x$

$k = \frac{5}{3}$

3.)

x	y	$k = y/x$
2	1	$1/2$
6	5	$5/6$
8	7	
12	11	

not proportional

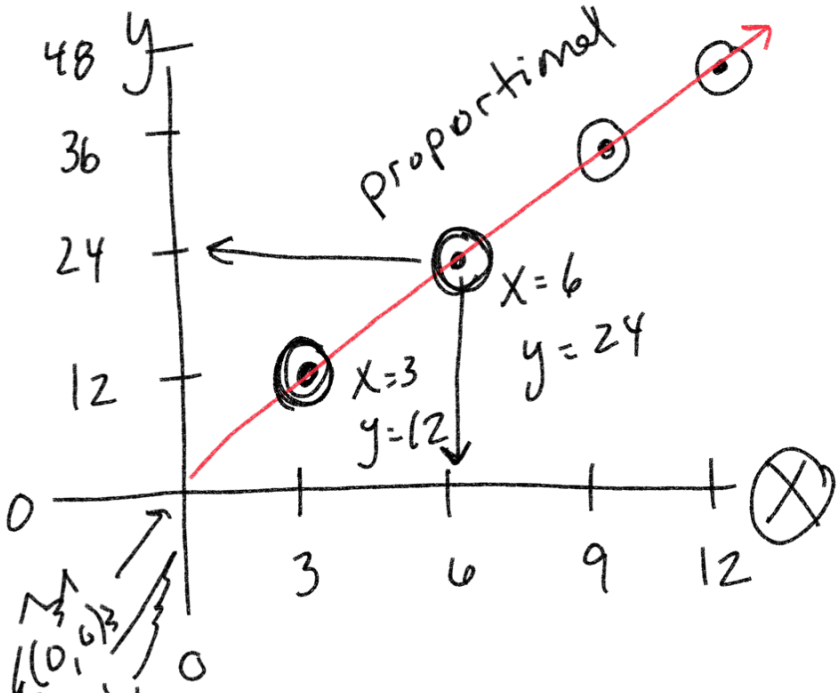
4.)

x	y	$k = y/x$
-2	8	$8/-2 = -4$
-1	4	$4/-1 = -4$
1	-4	$-4/1 = -4$
3	-12	$-12/3 = -4$

$y = kx$

$k = -4$

$y = -4x$

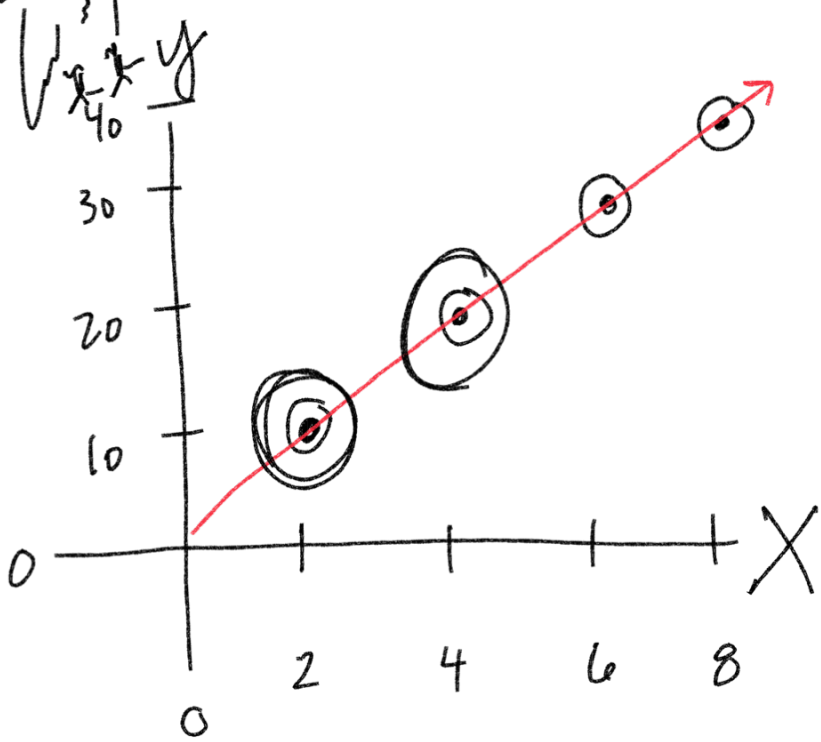


$$\boxed{y = kx}$$

$$k = \frac{y}{x} = \frac{12}{3} = 4$$

$$k = \frac{y}{x} = \frac{24}{6} = 4$$

$$\boxed{y = 4x}$$



$$k = \frac{y}{x} = \frac{10}{2} = 5$$

$$k = \frac{y}{x} = \frac{20}{4} = 5$$

$$k = 5 \qquad y = kx$$

$$\boxed{y = 5x}$$

→ time (min) x

Distance
→ traveled (m) y

2	6	8	10
34	102	136	170

$k = \frac{y}{x}$ $\frac{34}{2} = 17$

$k = \frac{y}{x} = \frac{102}{6} = 17$

$y = kx$

$\boxed{y = 17x}$