

# Direct Variation Practice #4

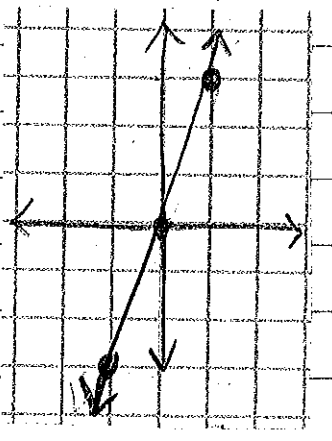
①  $k = \frac{1}{3}$   
 $m = \frac{1}{3}$

②  $k = -2$   
 $m = -2$

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

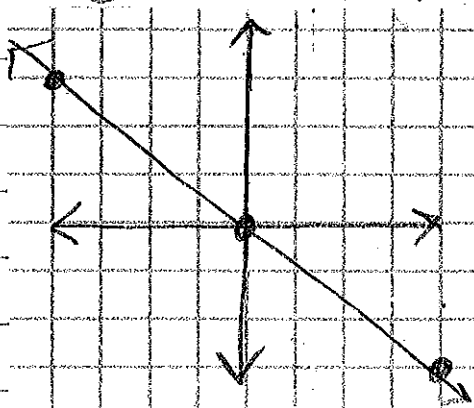
④

$y = 3x$

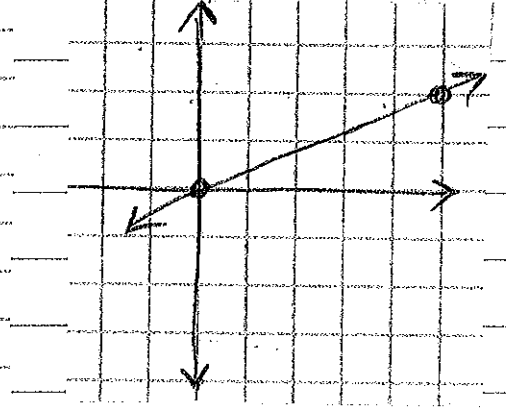


⑤

$y = -\frac{3}{4}x$



⑥  $y = \frac{2}{5}x$



⑦  $-8 = k(-2)$   
 $4 = k$   
 $y = 4x$

$32 = 4x$   
 $8 = x$

⑧  $45 = k(15)$   
 $3 = k$   
 $y = 3x$

$15 = 3x$   
 $5 = x$

⑨  $-4 = k(2)$   
 $-2 = k$   
 $y = -2x$

$y = -2(-6)$   
 $y = 12$

⑩  $-9 = k(3)$   
 $-3 = k$   
 $y = -3x$

$y = -3(-5)$   
 $y = 15$

⑪  $4 = k(16)$   
 $1/4 = k$   
 $y = 1/4x$

$y = 1/4(6)$   
 $y = 3/2$

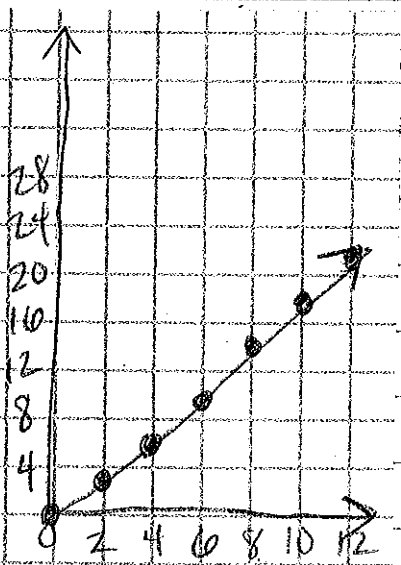
⑫  $12 = k(18)$   
 $2/3 = k$   
 $y = 2/3x$

$-10 = 2/3x$   
 $-24 = x$

⑬  $C = 1.8g$

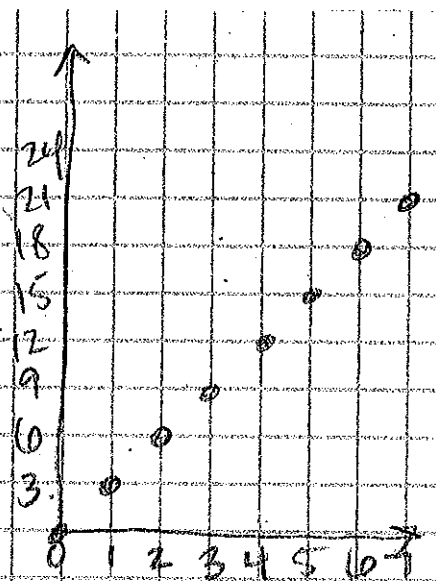
⑭  $T = 3C$

Cost



gallons

Toys



crates

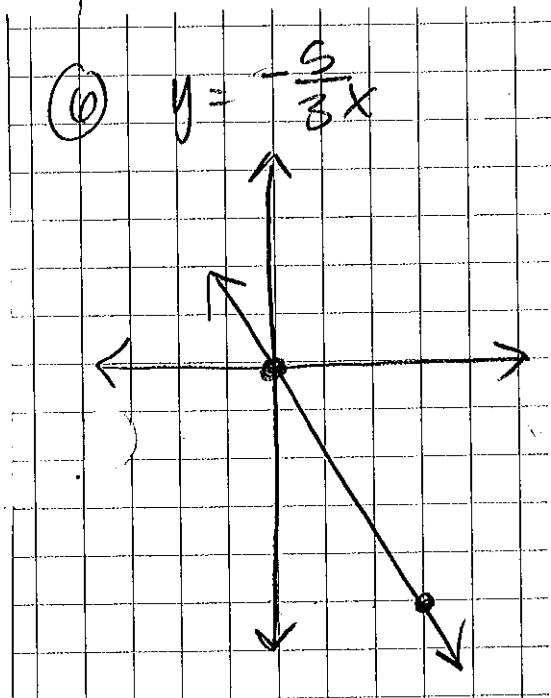
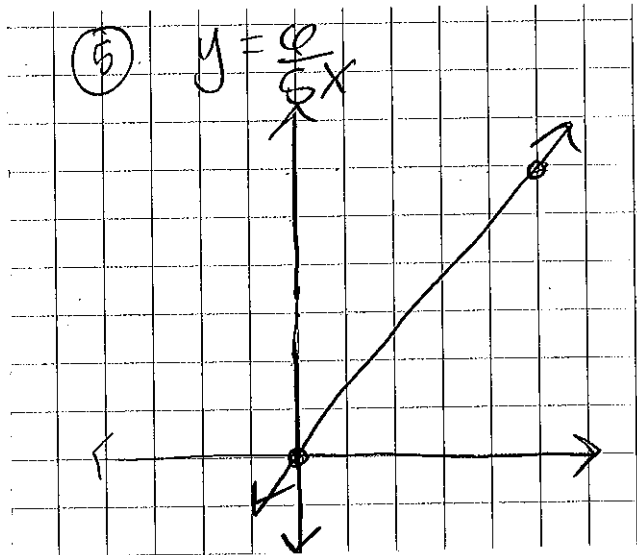
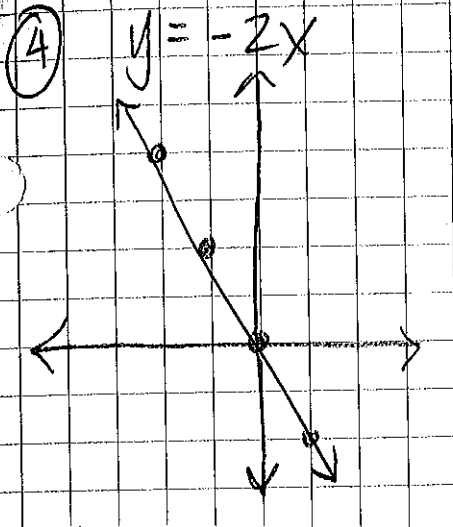
5-2 Box #. 4

pg. 2

① C.O.V. =  $\frac{3}{4}$

② C.O.V. =  $\frac{4}{3}$

③ C.O.V. =  $-\frac{5}{2}$



⑦  $y = kx$   
 $\downarrow \quad \downarrow$   
 $\frac{7.5}{0.5} = \frac{k(0.5)}{0.5}$   
 $15 = k$

$y = 15x$   
 $y = 15(-0.3)$   
 $y = -4.5$

⑧  $y = kx$   
 $\downarrow \quad \downarrow$   
 $\frac{80}{32} = \frac{k(32)}{32}$   
 $2.5 = k$

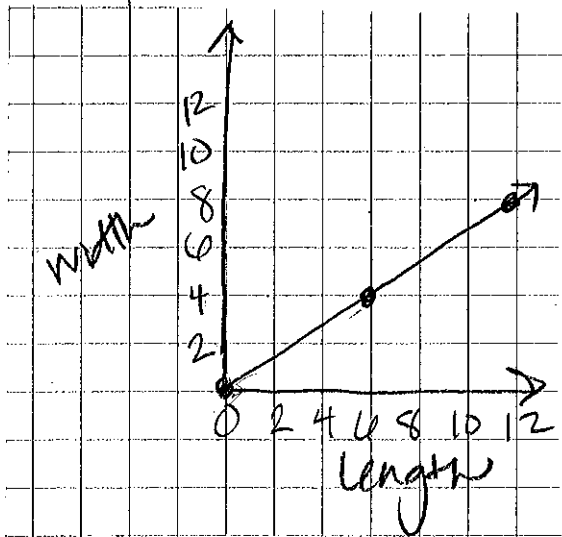
$y = 2.5x$   
 $100 = 2.5x$   
 $\frac{100}{2.5} = \frac{2.5x}{2.5}$   
 $40 = x$

⑨  $y = kx$   
 $\downarrow \quad \downarrow$   
 $\frac{3}{4} = \frac{k(24)}{24}$   
 $\frac{3}{4} \cdot \frac{1}{24} = \frac{k}{32} = k$

$y = \frac{1}{32}k$   
 $y = \frac{1}{32}(\frac{3}{4})^3$   
 $y = \frac{3}{8}$

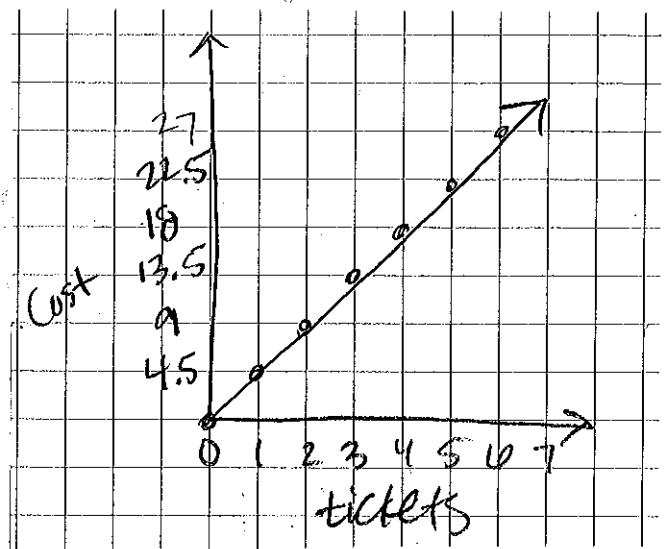
⑩

$$W = \frac{2}{3}l$$



⑪

$$C = 4.50t$$



⑫ ~~\$~~ bananas varies directly with weight (x)

$$\frac{1.12}{3.5} = \frac{k(3.5)}{3.5}$$

$$.32 = k$$

$$y = .32x$$

$$y = .32(4.25)$$

$$y = \$1.36$$

# D.V. Word Problems #5

①  $10 = k(2.5)$     ②  $120 = k(50)$     ③  $9 = k(15)$   
 $4 = k$      $2.4 = k$      $\frac{3}{5} = k$   
 $y = 4x$      $y = 2.4$      $y = \frac{3}{5}x$

$y = 4(18)$   
 $y = 72$

$y = 2.4(40)$   
 $y = 96$

$y = \frac{3}{5}(80)$   
 $y = 48$

④  $45 = k(600)$     ⑤  $70 = k(8)$     ⑥  $22 = k(50)$   
 $\frac{3}{40} = k$      $9.5 = k$      $44 = k$   
 $y = .075x$      $y = 9.5x$      $y = .44x$

$y = .075(1000)$   
 $y = 75$

$y = 9.5(34)$   
 $y = \$323$

$y = .44(90)$   
 $y = 39.6 \text{ cm}$

⑦  $90 = k(30)$     ⑧  $13 = k(25)$     ⑨  $399 = k(150)$   
 $3.2 = k$      $.52 = k$      $2.66 = k$   
 $y = 3.2x$      $y = .52x$      $y = 2.66x$

$y = 3.2(5)$   
 $y = 16.02$

$y = .52(120)$   
 $y \approx 62 \text{ pages}$

$y = 2.66(180)$   
 $y = 478.8 \text{ lb}$

⑩  $119 = k(170)$     ⑪  $180 = k(100)$   
 $.7 = k$      $1.8 = k$   
 $y = .7x$      $y = 1.8x$   
 $y = .7(120)$      $y = 84 \text{ lb.}$

$y = 1.8(270)$   
 $y = 486 \text{ tiles}$

# D.V. Word Problems #10

①  $300 = k(8)$       ②  $30 = k(50)$       ③  $10 = k(8)$   
 $4.5 = k$                        $.6 = k$                        $1.25 = k$

$$y = 4.5(30)$$
$$y = \$135$$

$$y = .6(120)$$
$$y = 72 \text{ cm}$$

$$y = 1.25(3)$$
$$y = 3.75 \text{ cm}$$

④  $1100 = k(8)$       ⑤  $120 = k(90)$       ⑥  $\frac{25 \text{ km}}{2 \text{ cm}} = \frac{x}{7 \text{ cm}}$   
 $20 = k$                        $\frac{4}{3} = k$

$$y = 20(15)$$
$$y = 300 \text{ cal.}$$

$$y = \frac{4}{3}(50)$$
$$y = 33.3 \text{ kg}$$

$$175 = 2x$$
$$87.5 \text{ km} = x$$

⑦  $4 = k(500)$   
 $.008 = k$

$$y = .008(1250)$$
$$y = 10 \text{ lb}$$