

9/27/20 PG 374 - 375

working on #7 with liliu

Start 4:43 - 5:09 PM

1.516

(100, 150) (20, 30)

$$\frac{150-30}{100-20} = \frac{120}{80} \text{ or } 1.5$$

0.05 Gallons

$$\frac{15-8}{100-110} = \frac{7}{140}$$

0

$$3. 6.8 \text{ v per X} \frac{6.4 - 2.4}{8-3} = \frac{4}{5} \cdot \frac{16}{20} = \frac{8}{100} \text{ or } 0.8$$

4 ON book

5 On book

78

3

X

234

6 C. 18.25

4

73

00

4

73

00

4

73

00

4

73

00

4

73

00

4

73

00

78

18.25

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73

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73

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78

18.25

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73

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4

73

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4

73

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73

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4

73

00

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Start 1:21 - 2:07

1 2, 3, 4

2 2, -1, -4

3 1, 0, -1

4 3, 1, -1

5 C

6 D $-2 \leq 4 - 2 \text{ and } -2 \leq 0 - 2$

7 B $2(-3) = -6 \quad 3(5) = 15$

$$15 - 6 = 9$$

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Start 2:09-2:43

1 1

2 -2

3 0

4 $\frac{3}{4}$

$$\frac{2-5}{-1-3} = \frac{-3}{-4} \text{ or } \frac{3}{4}$$

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

$$\frac{8-2}{-8} = \frac{-2}{-8} \text{ or } -\frac{1}{4}$$

6 0

$$\frac{2-2}{2-4} = \frac{0}{-2} \text{ or } 0$$

7 $-\frac{1}{3}$

$$\frac{2-1}{2-6} = \frac{1}{-4} \text{ or } -\frac{1}{4}$$

8 2

$$\frac{-2-4}{-2-1} = \frac{-6}{-3} = 2$$

9 -3

$$\frac{4-(2)}{2-4} = \frac{2}{-2} = -1$$

10 A

11 B

12 C

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Start 5:11 - 6:06 PM

$$1 \quad \begin{array}{|c|c|} \hline (7,6) & \begin{array}{|c|c|} \hline X & Y \\ \hline 0 & -15 \\ \hline 5 & 0 \\ \hline \end{array} & \begin{array}{|c|c|} \hline X & Y \\ \hline 0 & 13 \\ \hline 13 & 0 \\ \hline \end{array} \\ \hline \end{array}$$

$$-3, 11)$$

$$\begin{array}{|c|c|} \hline X & Y \\ \hline 0 & 5 \\ \hline 5 & 0 \\ \hline \end{array} - \frac{4}{5} = \frac{5}{1} \text{ and } 4$$

$$2, 5 \text{ or } \frac{1}{2}, 0 - \frac{4}{5} = 0$$

$$7x - y = 22 \text{ and } 4x + 2y = 10 \quad | \quad -y = -7x + 22 \rightarrow y = 7x - 22$$

$$4x + 2(7x - 22) = 10 \rightarrow 18x - 44 = 10 \rightarrow 18x = 54 \quad (x = 3)$$

$$4 \quad \begin{array}{|c|c|} \hline (3, -1) & \begin{array}{|c|c|} \hline X & Y \\ \hline x+y=9 & \\ \hline 2x-3y=8 & \\ \hline \end{array} & \begin{array}{|c|c|} \hline X & Y \\ \hline x+y=9 & \\ \hline 2x+3(9-x)=8 & \\ \hline \end{array} \\ \hline \end{array}$$

$$4(3) - 22 \rightarrow x = -1$$

$$x+y=9 \rightarrow y=9-x$$

$$(x=7)$$

$$2x - 27 + 3x = 8 \rightarrow 5x = 35 \quad (x=7)$$

$$x+y=9 \rightarrow 7+y=9 \quad (y=2)$$

$$5 \quad \begin{array}{|c|c|} \hline (-4, 3) & \begin{array}{|c|c|} \hline X & Y \\ \hline x-2y=-26 & \\ \hline 5x-2y=15 & \\ \hline \end{array} & \begin{array}{|c|c|} \hline X & Y \\ \hline 5x-6x-30=-26 & \\ \hline -x=4 \quad (x=-4) & \\ \hline \end{array} \\ \hline \end{array}$$

$$6 \quad \begin{array}{|c|c|} \hline (4, 6) & \begin{array}{|c|c|} \hline X & Y \\ \hline 10x-y=-1 & \\ \hline y=12x & \\ \hline \end{array} & \begin{array}{|c|c|} \hline X & Y \\ \hline 10x-12x=-1 \rightarrow -2x=-1 \rightarrow x=\frac{1}{2} & \\ \hline y=12(\frac{1}{2}) = y=6 & \\ \hline \end{array} \\ \hline \end{array}$$

$$7 \quad A. (2, -1) \quad \begin{array}{|c|c|} \hline X-2Y=4 & \\ \hline 6Y+5X=4 & \\ \hline \end{array} \quad \begin{array}{|c|c|} \hline X-2Y=4 \rightarrow X=2Y+4 & \\ \hline X-2(-1)=4 \quad (x=2) & \\ \hline \end{array} \quad \begin{array}{|c|c|} \hline 6Y+5(2Y+4)=4 \rightarrow & \\ \hline 16Y+20=4 \rightarrow 16Y=-16 \quad (y=-1) & \\ \hline \end{array}$$

8 C. (0, 0) They are always the same number

$$9 \quad C. (-\frac{9}{2}, -2) \quad 3(-2) = -6 = 2x+3 \rightarrow -6 = 2x+3 \rightarrow -9 = 2x \quad x = -\frac{9}{2}$$

10 C. It's the opposite of $y = 4x+2$

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Start 3:49 - 4:41

$$1 \quad \begin{cases} y = -4x + 2 \\ -2 = -4(x) + b \end{cases} \quad \begin{matrix} x = 1 \\ y = -2 \end{matrix} \quad m = -4$$

$$2 \quad \begin{cases} y = 2x - 2 \\ -4 = 2(-) + b \end{cases} \quad \begin{matrix} x = -1 \\ y = -4 \end{matrix} \quad m = 2$$

$$3 \quad \begin{cases} y = -\frac{1}{3}x + \frac{2}{3} \\ 2 = -\frac{1}{3}(-4) + b \end{cases} \quad \begin{matrix} x = -4 \\ y = 2 \end{matrix} \quad m = -\frac{1}{3}$$

$$4 \quad \begin{cases} y - 1 = 3(x - 2) \\ y - 1 = 3(x - 2) \end{cases} \quad \begin{matrix} x = 2 \\ y = 1 \end{matrix} \quad m = 3$$

$$5 \quad \begin{cases} y = -\frac{1}{3}(x - 2) \\ y = -\frac{1}{3}(x - 2) \end{cases} \quad \begin{matrix} x = 2 \\ y = 0 \end{matrix} \quad m = -\frac{1}{3}$$

$$6 \quad \begin{cases} y + 2 = x - 1 \\ y - (-2) = x - 1 \end{cases} \quad \begin{matrix} x = 1 \\ y = -2 \end{matrix} \quad m = 1$$

$$7 \quad \begin{cases} y - (-1) = x - 1 \\ y = -\frac{1}{3}x + \frac{4}{3} \end{cases} \quad \begin{matrix} x = -\frac{1}{3} \\ y = -\frac{1}{3} \end{matrix} \quad \begin{matrix} 1 = -\frac{1}{3}(1) + b \\ b = \frac{4}{3} \end{matrix} \quad \begin{matrix} b = \frac{4}{3} \\ -\frac{1}{3} + \frac{4}{3} = 1 \end{matrix}$$

$$8 \quad \begin{cases} y = 4x + 12 \\ 0 = 4(-2) + b \end{cases} \quad \begin{matrix} x = 1 \\ y = 4 \end{matrix} \quad m = -4$$

$$9 \quad \begin{cases} y = \frac{1}{2}x - \frac{5}{2} \\ y = \frac{1}{2}(7) + b \end{cases} \quad \begin{matrix} b = 12 \\ \frac{1 - (-4)}{7 - (-3)} = \frac{5}{10} \text{ or } \frac{1}{2} \end{matrix} \quad \begin{matrix} -12 + 12 = 0 \\ -8 + 12 = 4 \end{matrix} \quad \begin{matrix} 4 - 4(-2) + b \\ b = 4 \end{matrix} \quad \begin{matrix} y = 4x + 12 \\ y = 4 \end{matrix}$$

$$10 \quad \begin{cases} C. \quad y = -x - 1 \\ D. \quad y = -1(x) + b \end{cases} \quad \begin{matrix} b = 1 \\ b = 0 \end{matrix} \quad \begin{matrix} 1 - 1 = 0 \\ 1 - (-3) = 0 \end{matrix} \quad \begin{matrix} -x - 1 = 0 \\ -3 - 3 = 0 \end{matrix} \quad \begin{matrix} x = -1 \\ x = -3 \end{matrix} \quad \begin{matrix} y = 0 \\ y = -3 \end{matrix} \quad \begin{matrix} M = \frac{1}{2} \\ M = 0 \end{matrix}$$

$$11 \quad \begin{cases} B. \quad y = 4 \\ D. \quad y = \frac{1}{2}x - 1 \end{cases} \quad \begin{matrix} 4 = -3(0) + b \\ 4 = -3 + b \end{matrix} \quad \begin{matrix} y - 2 = \frac{1}{2}(x - 6) \\ y - 2 = \frac{1}{2}x - 3 \end{matrix} \quad \begin{matrix} b = 4 \\ y = \frac{1}{2}x - 1 \end{matrix}$$

$$12 \quad \begin{cases} C. \quad y = -x - 4 \\ Y = x - 4 \end{cases} \quad \begin{matrix} 5 = -1 - 4 \\ 5 = -5 \end{matrix} \quad \begin{matrix} y = 4 \\ y = -4 \end{matrix}$$