

Section 2.2a – Practice Questions

EMERGING LEVEL QUESTIONS

Determine whether the given ordered pair is a solution to the equation (a point on the line).

1. $(2, 3); 3x - 5y = -9$

↑
sub in for
(x,y)

$$3(2) - 5(3) = -9$$

$$6 - 15 = -9$$

$$-9 = -9$$

YES

2. $(0, 4); y = -\frac{1}{3}x + 4$

$$4 = -\frac{1}{3}(0) + 4$$

$$4 = 4$$

YES

3. $(1, -1); 3y = 5 - 2x$

$$3(-1) = 5 - 2(1)$$

$$-3 = 3$$

NO

4. $(6, 8); \frac{1}{3}x - \frac{1}{4}y = 4$

$$\frac{1}{3}(6) - \frac{1}{4}(8) = 4$$

$$2 - 2 = 4$$

$$0 = 4$$

NO

5. $(4, 2); x = 4$

$$4 = 4$$

YES

6. $(-1, 3); y = -1$

$$3 = -1$$

NO

7. $(4, -3); 0.05x - 1.2y = 3.8$

$$0.05(4) - 1.2(-3) = 3.8$$

$$0.2 - (-3.6) = 3.8$$

$$3.8 = 3.8$$

YES

8. $(\frac{2}{3}, -\frac{3}{4}); 60x - 36y = 13$

$$60\left(\frac{2}{3}\right) - 36\left(-\frac{3}{4}\right) = 13$$

$$40 - (-27) = 13$$

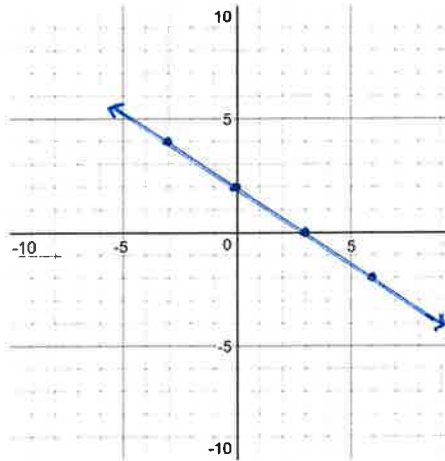
$$67 = 13$$

NO

PROFICIENT LEVEL QUESTIONS

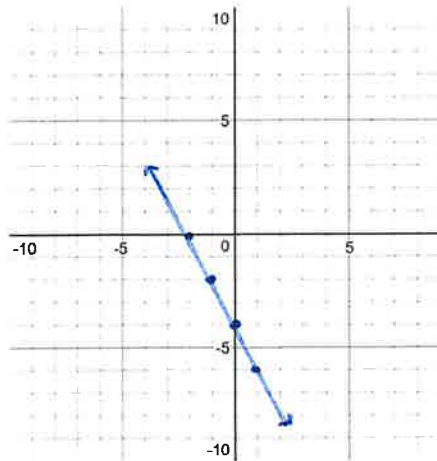
Graph the following Linear Equations

9. $2x + 3y = 6$

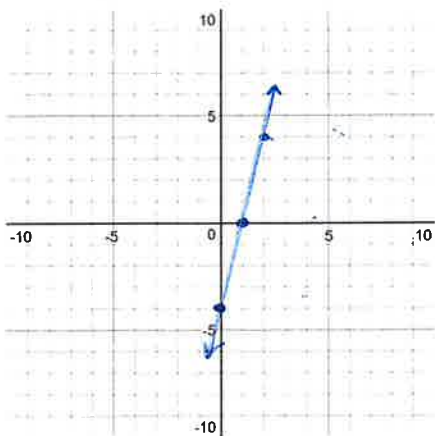


10. $2x + y = -4$

$y = -2x - 4$



11. $2x - \frac{1}{2}y = 2$

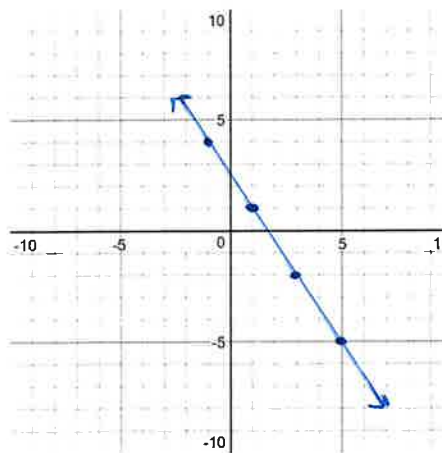


$2x - \frac{1}{2}y = 2$

$-\frac{1}{2}y = -2x + 2$

$y = 4x - 4$

12. $3x + 2y = 5$



Look close \longrightarrow need a point

$2y = -3x + 5$

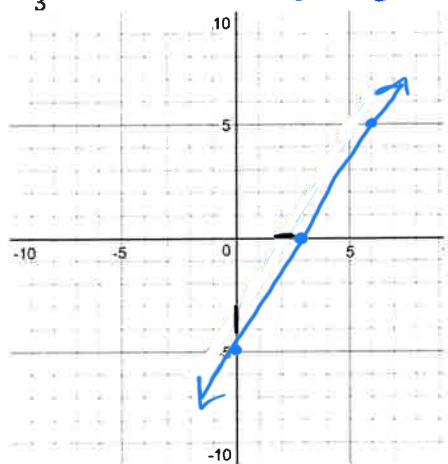
$y = -\frac{3}{2}x + \frac{5}{2}$

\uparrow
slope

$3x + 2y = 5$

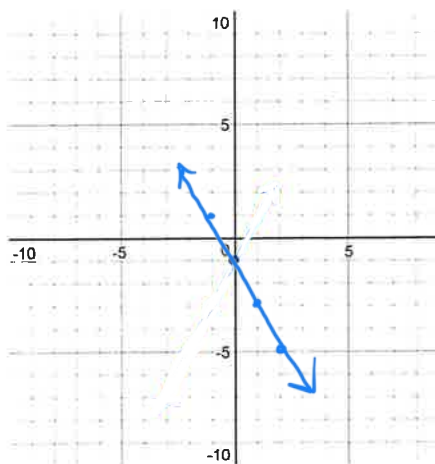
if $x = 1$
 $y = 1$ we good

13. $\frac{2}{3}x - 0.4y = 2 \rightarrow \frac{2}{3}x - \frac{2}{5}y = 2$

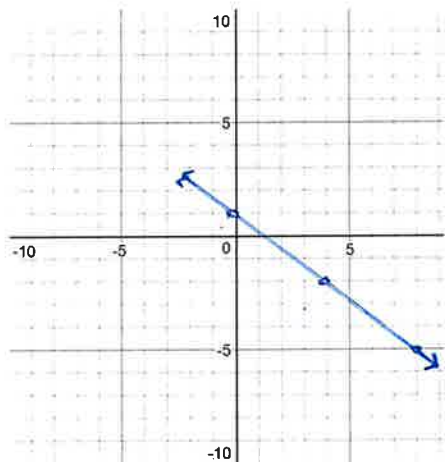


$10x - 6y = 30$ ← when $y = 0$
 $x = 3$
 when $x = 0$ $x = 6$
 $y = -5$ $y = 5$

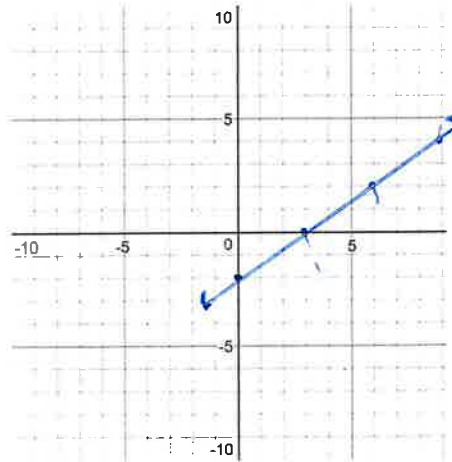
14. $y = -2x - 1$



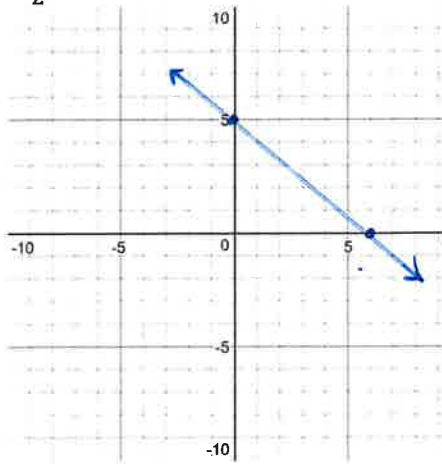
15. $y = -\frac{3}{4}x + 1$



16. $y = \frac{2}{3}x - 2$



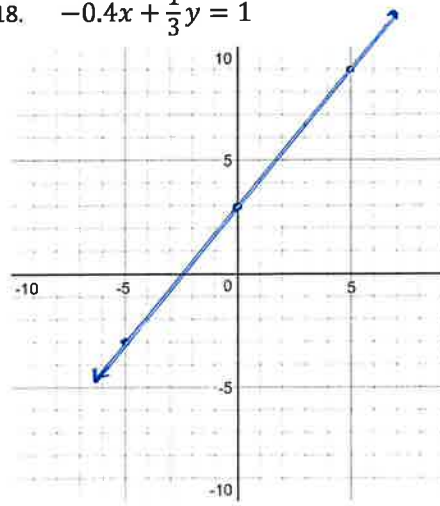
17. $\frac{1}{2}x + 0.6y = 3$



$\frac{1}{2}x + \frac{3}{5}y = 3$
 $5x + 6y = 30$

$x=0$ $y=0$
 $y=5$ $x=6$

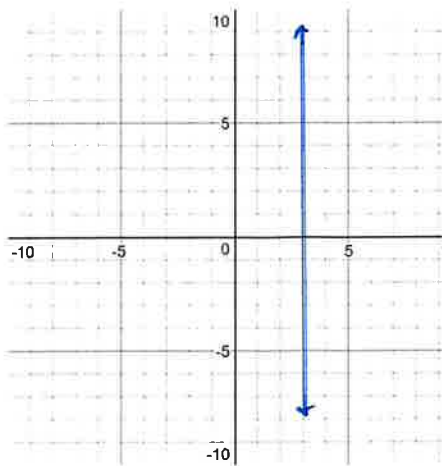
18. $-0.4x + \frac{1}{3}y = 1$



$-\frac{2}{5}x + \frac{1}{3}y = 1$
 $-6x + 5y = 15$
 $x=0$
 $y=3$

$5y = 6x + 15$
 $y = \frac{6}{5}x + 3$

19. $x = 3$



20. $y = -2$

