

Solve each equation. Exact answers in simplest form. Show your work!

1)  $-8x = -5(-3 + x)$

$x = -5$

2)  $-2k - 23 = 1 - 2(-8k - 6)$

$k = -2$

3)  $-2k + 7(7k - 4) = 2k - 28$

$k = 0$

4)  $-34 - 6x = -8(8 - x) + x$

$x = 2$

5)  $35 - 3a = 2(a + 4) + 2$

$a = 5$

6)  $-2 + 7x = -2(1 + 5x)$

$x = 0$

7)  $-2(n - 4) = 16 + 6n$

$n = -1$

8)  $10b^2 + 8 = -128$

$\emptyset$

9)  $-9 - 7a^2 = -93$

$a = \pm 2\sqrt{3}$

10)  $1 - 10x^2 = -639$

$x = \pm 8$

11)  $-\frac{21}{8} - r = -\frac{9}{4}r - \left(\frac{5}{2}r - \frac{1}{2}\right)$

$r = \frac{5}{6}$

12)  $-\frac{1}{2} + x = -\frac{21}{8}\left(x - \frac{1}{2}\right)$

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

13)  $7(8v + 4) + 8(1 - 4v) = 2 - 5v + 1 - 4v$

$v = -1$

14)  $7(x + 6) = 8(x + 4)$

$x = 10$

$$15) 6(1 + 6x) - 1 = -6(-4 - 6x)$$

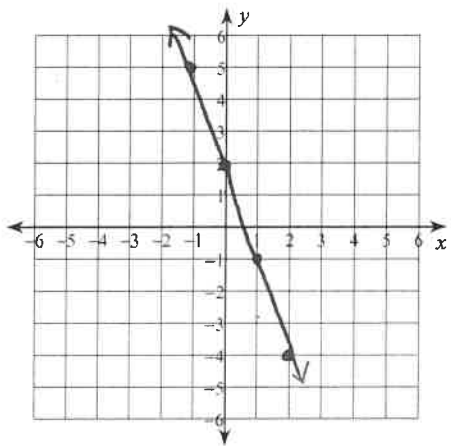
$\phi$

$$16) 2(1 + 2a) = -7(-3a + 7)$$

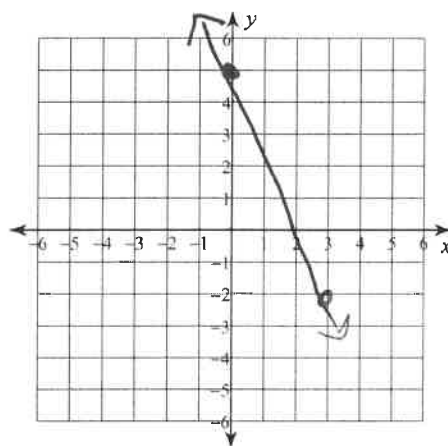
$a = 3$

Sketch the graph of each line.

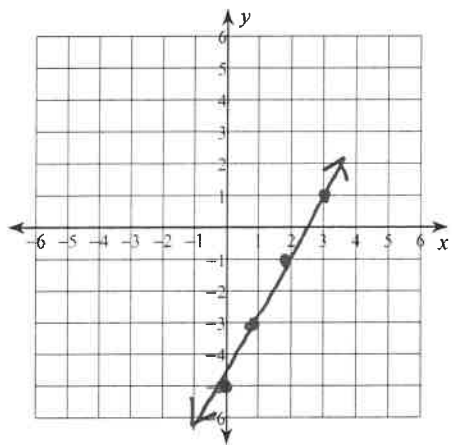
$$17) y = -3x + 2$$



$$18) y = -\frac{7}{3}x + 5$$



$$19) 2x - y = 5$$



$$20) 3x - y = -1$$

