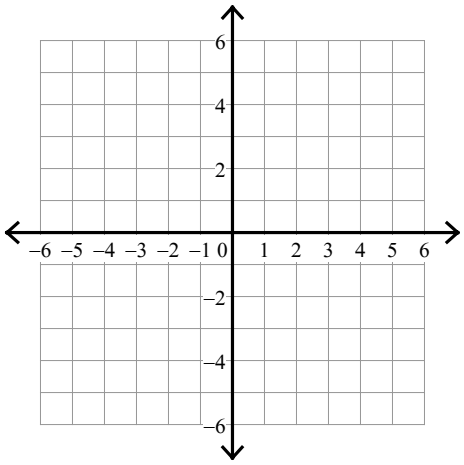
Algebra 1 Name_____

Review for Final Exam I

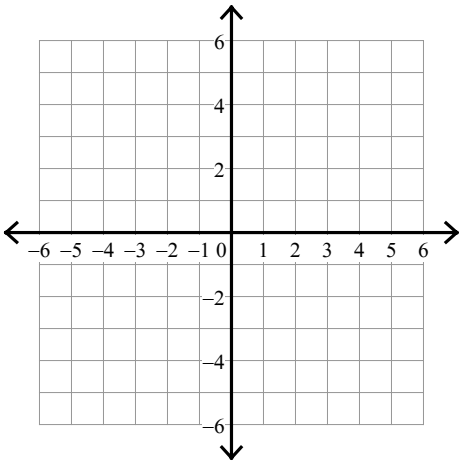
Date_____ Period____

Graph each equation.

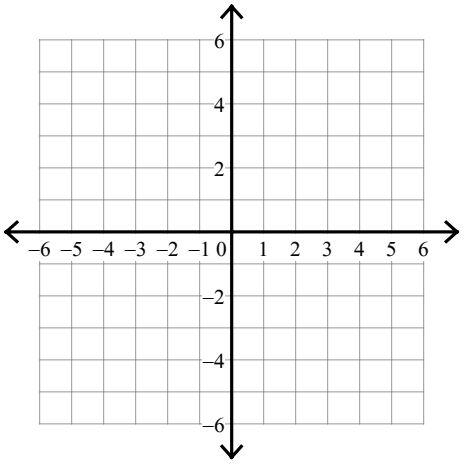
1) $y = |x| + 3$



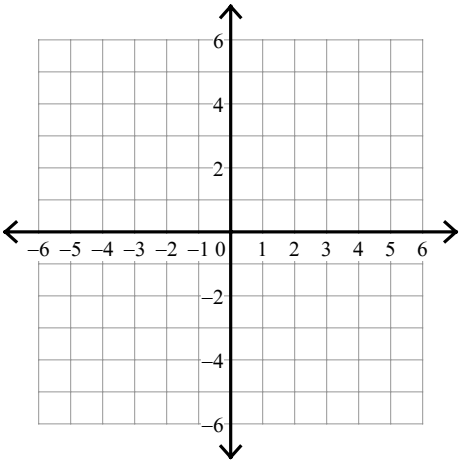
2) $y = |x| - 1$



3) $y = -|x - 2| - 2$



4) $y = -|x - 1| - 1$



Simplify each expression.

5) $-5(-7n + 9) - 4(8n - 9)$

6) $3(1 + 6n) + 10(8 - 9n)$

7) $-7(6v - 3) + 3(8 - 8v)$

8) $-5(1 - 4k) + 6(1 - 2k)$

9) $2(r - 4) + 7(1 - 8r)$

10) $-2(2 + x) - 8(1 - 5x)$

Solve each equation.

11) $2 = 2(r - 4)$

12) $14 = 2 - 3(x + 3)$

13) $12 = -4(x - 3)$

14) $-8(8 - 6x) = 80$

15) $-77 = -7(7 - n)$

16) $-30 = 6(5a + 5)$

Simplify. Your answer should contain only positive exponents.

17) $\dfrac{x^3y^3 \cdot x}{(-2x)^2}$

18) $\dfrac{y^4}{-xy\left(xy^2\right)^3}$

19) $\dfrac{\left(2x^2y^2\right)^2}{x \cdot -2x^2y^4 \cdot \left(x^2\right)^3}$

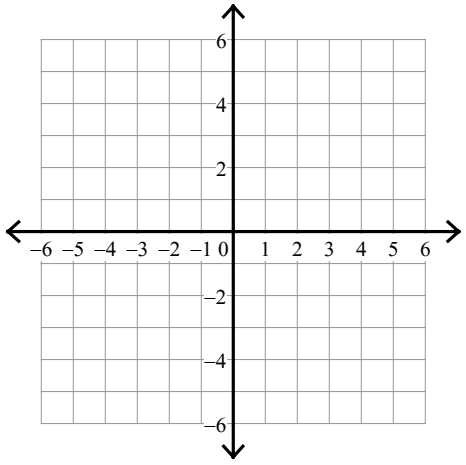
20) $\dfrac{b^4}{\left(2a^4b^3\right)^2 \cdot a^3b^3}$

21) $\dfrac{x^2y^0}{2x^2y^2 \cdot \left(x^{-4}y^{-4}\right)^4}$

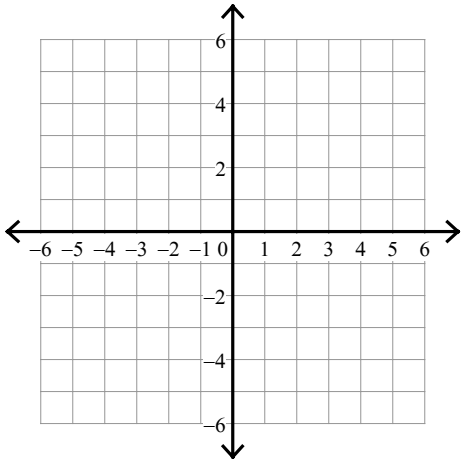
22) $\dfrac{\left(2x^{-1}\right)^{-2}}{2x^{-3}y^0 \cdot yx^4}$

Use "thumb cover-up" or convert to slope-intercept form and sketch the graph of each line.

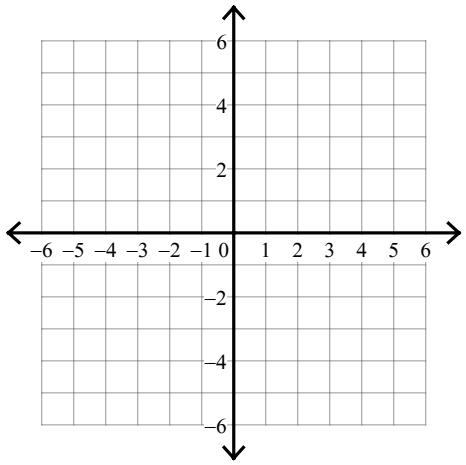
23) $2x + y = -5$



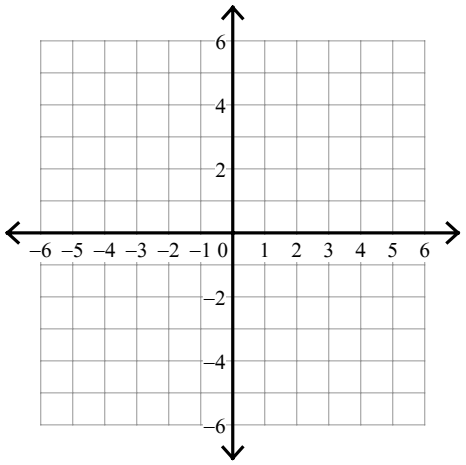
24) $x - 3y = 12$



25) $8x - 5y = 25$

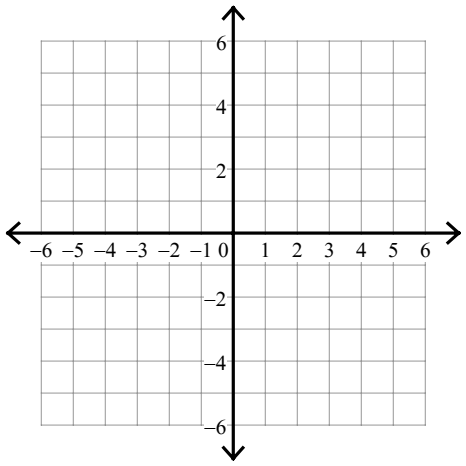


26) $x - y = 4$

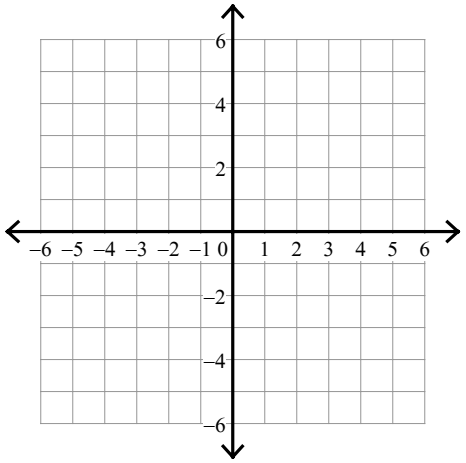


Sketch the graph of each line.

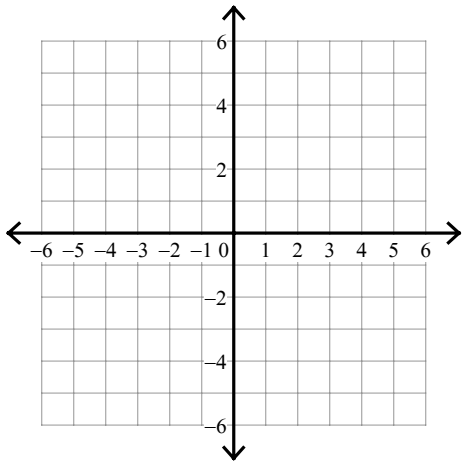
27) $y = -\frac{1}{4}x - 4$



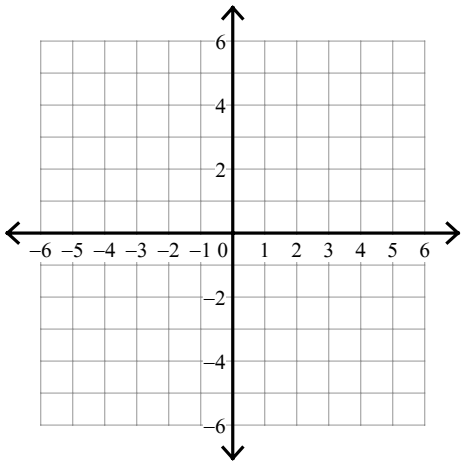
28) $y = 6x + 5$



29) $y = \frac{5}{4}x - 3$

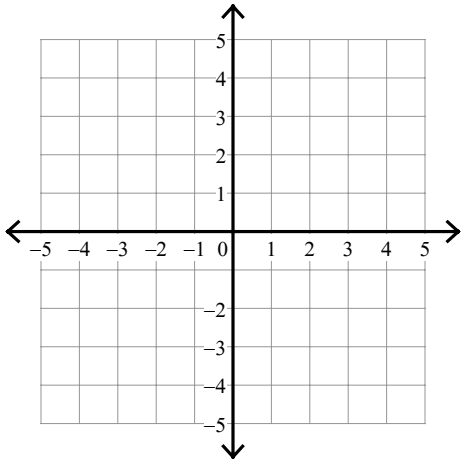


30) $y = \frac{2}{3}x + 1$

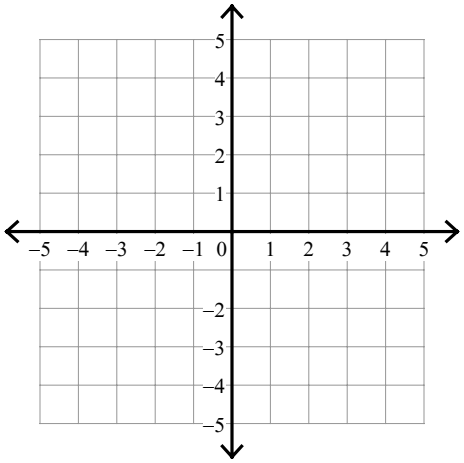


Solve each system by elimination or substitution. Then graph your solution.

31) $x + y = -4$
$3x - y = -4$

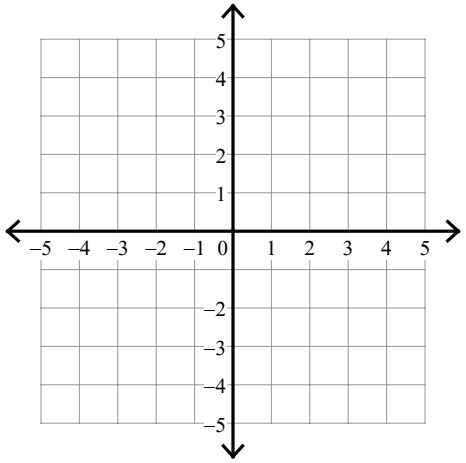


32) $x + y = -2$
$x - 2y = -8$



33) $y = 2x - 4$

$y = 2x - 2$



34) $y = -x + 1$

$y = \frac{3}{2}x - 4$