

## Quiz 25.1

Simplify. Your answer should contain only positive exponents.

1)  $2n \cdot n$

A)  $24n^8$

B)  $\frac{1}{n}$

C)  $2n^2$

D)  $48n^6$

2)  $3a^4 \cdot a^4$

A)  $\frac{12}{a^4}$

B)  $3a^8$

C)  $4a^8$

D)  $16a^5$

3)  $-y^{-2} \cdot 2x^{-1}y^{-1}$

A)  $-\frac{12x^5}{y}$

B)  $-\frac{4y^2}{x}$

C)  $-\frac{2}{y^3x}$

D)  $-\frac{3}{y^4x}$

4)  $(3n^{-2})^4$

A)  $\frac{1}{8n^9}$

B)  $\frac{8}{n^3}$

C)  $81n^{16}$

D)  $\frac{81}{n^8}$

5)  $(4x^3)^2$

A)  $\frac{x^{12}}{256}$

B)  $16x^6$

C)  $\frac{1}{64x^6}$

D)  $\frac{1}{27x^{12}}$

6)  $(y^2)^2 \cdot x^4y^2$

A)  $\frac{2y^7}{x^5}$

B)  $\frac{16x^3}{y}$

C)  $16x^{24}y^{12}$

D)  $y^6x^4$

7)  $\frac{4a^{-1}b^{-3}}{2ba^4}$

A)  $\frac{2}{a^5b^4}$

B)  $\frac{3ab}{4}$

C)  $\frac{2}{a^3}$

D)  $\frac{1}{3b^4}$

8)  $\frac{3u^{-2}v^3}{u^3}$

A)  $\frac{3v}{2u^2}$

B)  $\frac{3v^3}{u^5}$

C)  $\frac{v^2}{2u}$

D)  $\frac{v^7u}{3}$

Solve for  $y = mx + b$ , and state the slope and the  $y$  - intercept.

9)  $y = 1$

A)  $y = 1, m = 0, b = 1$

B)  $y = \frac{1}{4}, m = 0, b = 1/4$

C)  $x = -4, m = \text{none}, b = -4$

D)  $x = -1, m = \text{none}, b = -1$

10)  $4x + 3y = -6$

A)  $y = \frac{2}{3}x - \frac{1}{3}, m = \frac{2}{3}, b = -\frac{1}{3}$

B)  $y = -\frac{4}{3}x - 2, m = -\frac{4}{3}, b = -2$

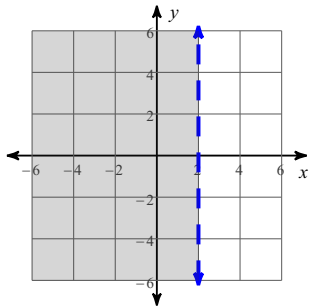
C)  $y = -\frac{1}{3}x - 2, m = -\frac{1}{3}, b = -2$

D)  $y = -2x - \frac{1}{3}, m = -2, b = -\frac{1}{3}$

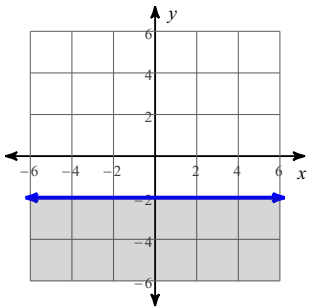
Sketch the graph of each linear inequality.

11)  $x \leq -2$

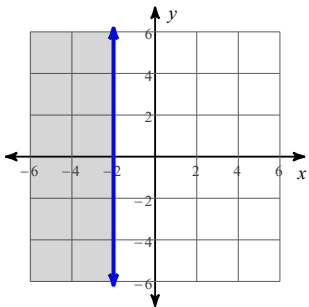
A)



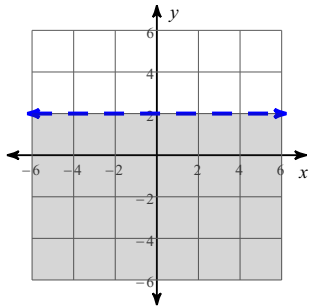
B)



C)

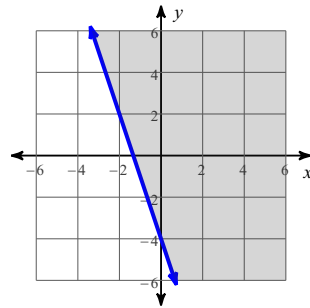


D)

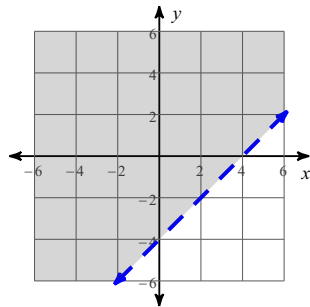


12)  $y < -x - 4$

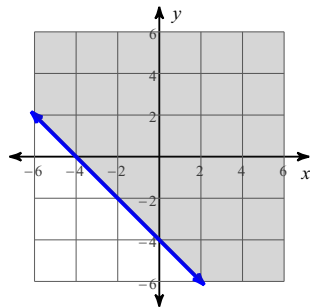
A)



B)



C)



D)

