

Practice Problems - No Calculator

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Evaluate each expression.

1) $(3 - 6) \div 3 + 6 - -1$

2) $-5 - |-3| \cdot 3 - 1$

Evaluate each using the values given.

3) $p - 4 - |p + m|$; use $m = -3$, and $p = -5$

4) $|z| - 5 + |y|$; use $y = 1$, and $z = -3$

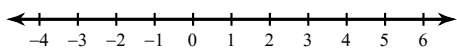
Solve each equation.

5) $2 + 4n = n + 2$

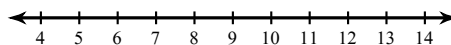
6) $x + 4 - 6 + 1 = x - 1$

Solve each inequality and graph its solution.

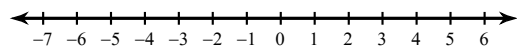
7) $3(x + 1) \geq 15$



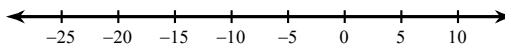
8) $\frac{b}{5} - 1 \leq 1$



9) $\left| \frac{x}{2} \right| > 1$

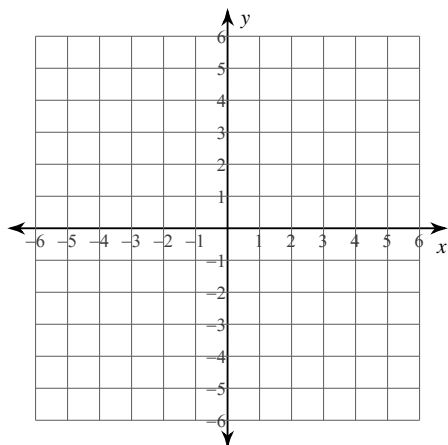


10) $|8 + n| < 18$

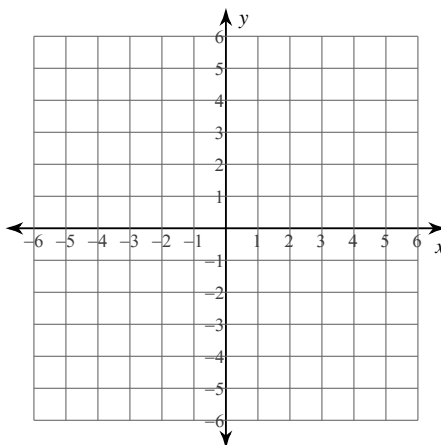


Sketch the graph of each line.

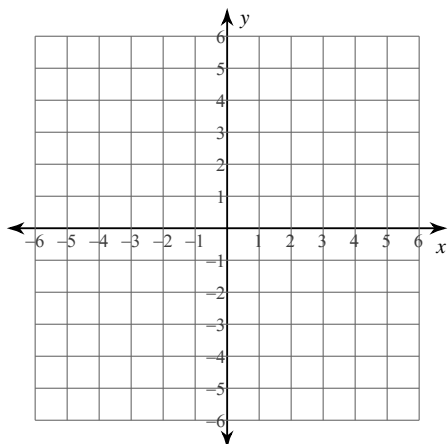
11) x -intercept = 4, y -intercept = -2



12) x -intercept = 1, y -intercept = -4



13) $5x + y = 1$



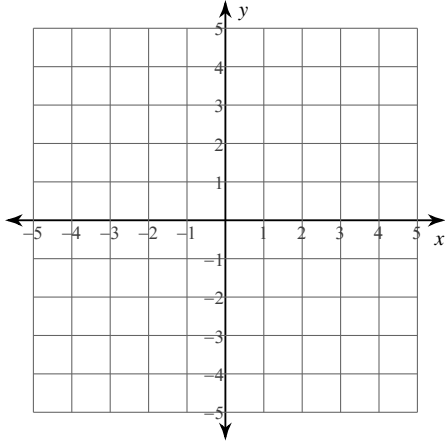
Write the point-slope form of the equation of the line through the given points.

14) through: $(0, -1)$ and $(4, -3)$

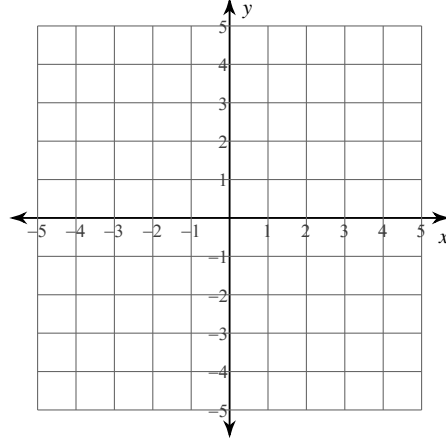
15) through: $(0, -2)$ and $(-4, 0)$

Solve each system by graphing.

16) $y = -2x + 3$
 $y = 2x - 1$



17) $y = \frac{3}{4}x + 1$
 $y = 4$



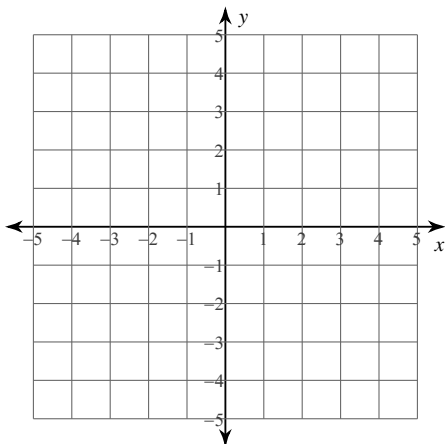
Solve each system by elimination.

18) $-x - y = 7$
 $-4x + 6y = -22$

19) $-2x + 6y = 14$
 $-x + 2y = 7$

Sketch the solution to the system of inequalities.

20) $y \leq x - 1$
 $y \geq 5x + 3$



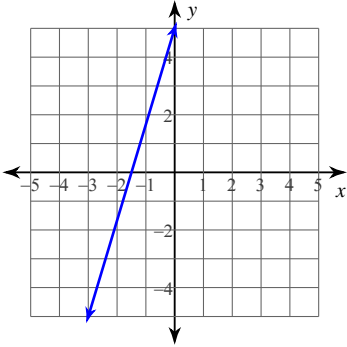
Solve each equation with the quadratic formula.

21) $x^2 - 3x + 2 = 0$

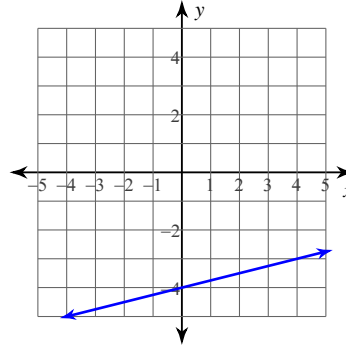
22) $2x^2 - x - 3 = 0$

Write the slope-intercept form of the equation of each line.

23)



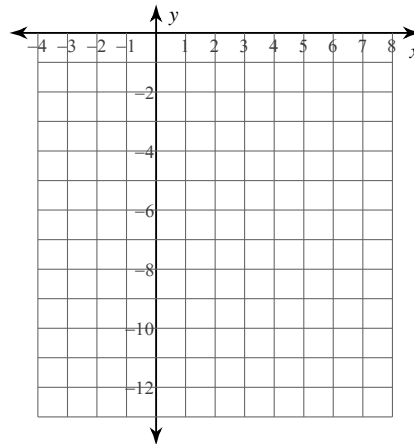
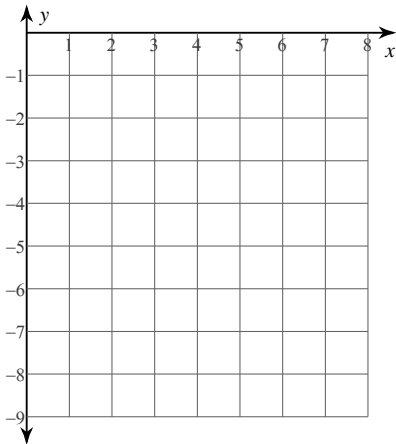
24)



Sketch the graph of each function and then state the domain and range.

25) $y = -x^2 + 6x - 13$

26) $y = -2x^2 + 4x - 6$



Classify each polynomial by degree and number of terms.

27) $4n^3 - 3n^2$

28) 6

29) $-8m$

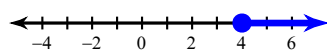
30) $3n^3 + 6n + 8$

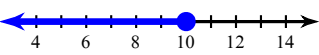
31) $-8x + 5$

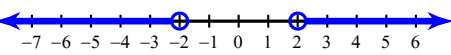
32) $-6n^4 - 8n^3 + 3n^2 - 3n$

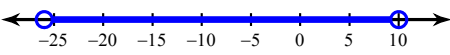
Answers to Practice Problems - No Calculator

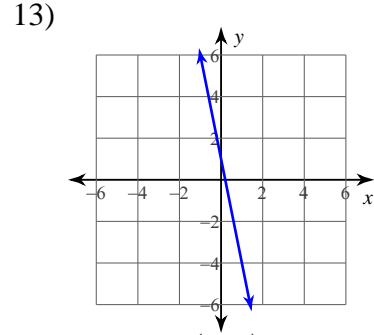
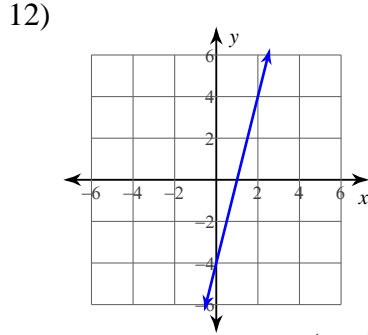
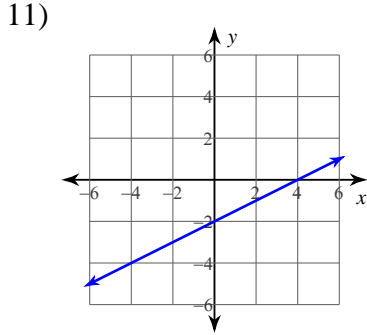
1) 6 2) -15 3) -17 4) -1

5) {0} 6) { All real numbers. } 7) $x \geq 4$: 

8) $b \leq 10$: 

9) $x > 2$ or $x < -2$: 

10) $-26 < n < 10$: 



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

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

16) (1, 1)

17) (4, 4)

18) (-2, -5)

19) (-7, 0)

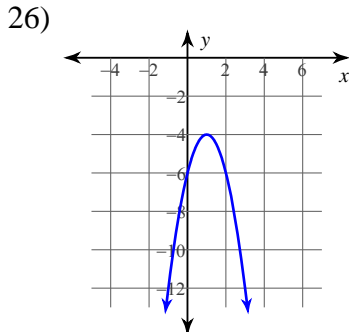
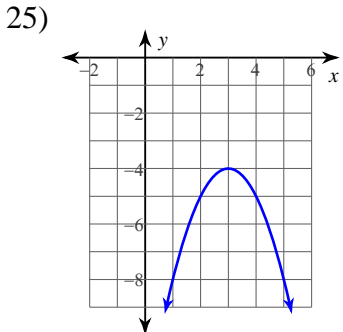
20) 

21) {2, 1}

22) $\left\{1\frac{1}{2}, -1\right\}$

23) $y = \frac{10}{3}x + 5$

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



27) cubic binomial

28) constant monomial

29) linear monomial

30) cubic trinomial

31) linear binomial

32) quartic polynomial with four terms