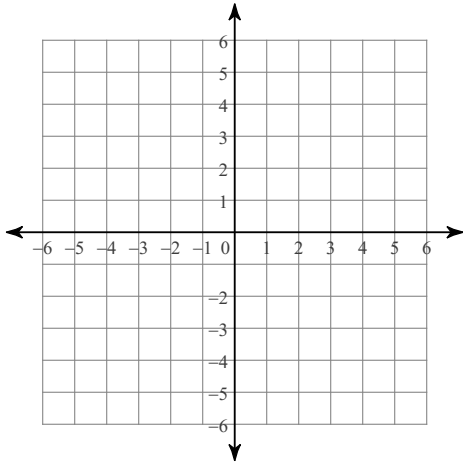


Summer Assignment - Show all Work!

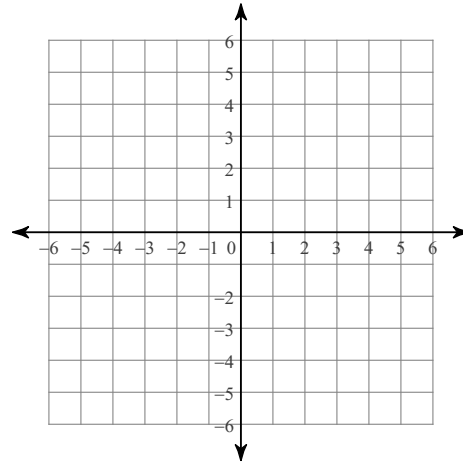
Due Friday 9/9/16 _____

Sketch the graph of each line.

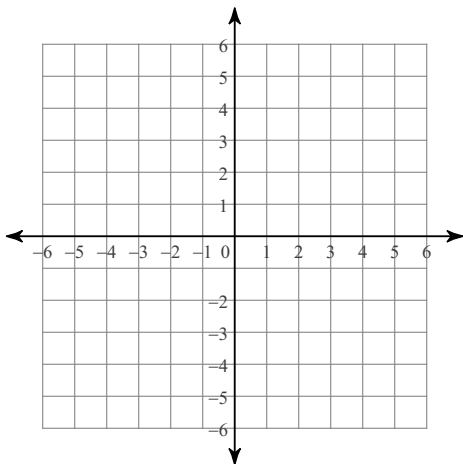
1) $2x - y = 5$



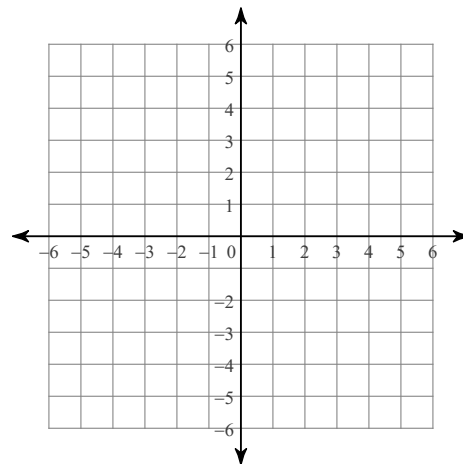
2) $x + 3y = -9$



3) $x + 5y = 0$



4) $x + 4y = -4$



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

5) through: $(-3, 0)$, slope = $-\frac{3}{2}$

6) through: $(-3, -4)$, slope = $\frac{7}{3}$

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

7) through: $(0, 5)$ and $(-3, 3)$

8) through: $(5, -1)$ and $(0, 5)$

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

9) through: $(-1, 2)$, parallel to $y = -7x - 4$

10) through: $(1, 5)$, parallel to $y = 10x - 4$

11) through: $(3, 5)$, perp. to $y = -\frac{1}{3}x - 4$

12) through: $(-5, -2)$, perp. to $y = \frac{5}{2}x - 5$

Solve each system by elimination.

13) $6x - y = -7$
 $2x - 6y = 26$

14) $-2x - y = 13$
 $8x - 4y = 4$

15) $-x - 2y = 1$
 $-9x - 3y = 24$

16) $7x + 5y = 11$
 $-x - 10y = 17$

Solve each system by substitution.

17) $-3x - 7y = 9$
 $x - 8y = -3$

18) $-7x + y = 11$
 $5x - 3y = -1$

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

20) $x - 5y = 15$
 $-3x + 15y = -45$

Factor each completely.

21) $4 - 4n^2$

22) $25m^2 - 9$

23) $x^2 + 2x + 1$

24) $25x^2 - 4$

25) $n^2 - 16$

26) $125v^2 - 45$

27) $5p^2 - 40p + 80$

28) $2k^2 - 2$

29) $25n^2 - 10n + 1$

30) $4m^2 - 20m + 25$

31) $-x^2 + 8x$

32) $-2x^3 + 10x^2$

33) $4x^4 - 28x^3 + 24x^2$

34) $x^2 - 8x - 20$

35) $n^3 + 13n^2 + 40n$

36) $5n^2 - 12n - 32$

37) $7n^3 - 58n^2 + 63n$

38) $5x^2 + 44x - 60$

39) $-10r^4 + 35r^3 - 30r^2$

40) $-14k^3 + 68k^2 + 10k$

Solve each equation by taking square roots.

41) $4n^2 - 4 = 320$

42) $2a^2 - 1 = 131$

43) $3 + 81k^2 = 67$

44) $5x^2 + 2 = 322$

45) $-1 - 5x^2 = -3$

46) $3n^2 + 6 = 3$

Solve each equation by factoring.

47) $x^2 + x - 33 = 4x - 5$

48) $2n^2 + n - 14 = n^2 - 8$

49) $-m^2 - 12m = -2m^2 - 35$

50) $-4r^2 - 9r + 23 = 5 - 5r^2$

51) $2x^2 + 42 = 19x$

52) $2n^2 + 11n + 6 = -2n$

53) $7b^2 - 56 = 41b$

54) $2v^2 + 3v - 4 = 1$

Solve each equation with the quadratic formula.

55) $4x^2 = 8 - 2x$

56) $6x^2 = 7x + 12$

57) $6a^2 - 121 = 11a$

58) $6p^2 = 7p - 1$

$$59) 2k^2 - 11 = -8k$$

$$60) 4x^2 = -x - 7$$

Factor each completely.

$$61) 12n^3 + 42n^2 - 2n - 7$$

$$62) 10m^3 + 12m^2 + 15m + 18$$

$$63) 7r^3 + 42r^2 + r + 6$$

$$64) 18x^3 - 24x^2 + 21x - 28$$

$$65) 27a^3 + 125$$

$$66) 8 + x^3$$

$$67) 125m^3 + 216$$

$$68) 216x^3 + 1$$

Evaluate each function.

$$69) f(a) = a^2 - 5a; \text{ Find } f(2)$$

$$70) f(x) = x^3 - 4x; \text{ Find } f(3)$$

$$71) k(x) = -2x^2 + 3; \text{ Find } k(7)$$

$$72) w(x) = 2x + 2; \text{ Find } w(7)$$

73) $h(a) = 3a - 3$; Find $h\left(\frac{n}{4}\right)$

74) $f(n) = n^2 - 1 - 2n$; Find $f(n + 2)$

75) $f(a) = a^2 - a$; Find $f(a^2)$

76) $f(x) = -3x + 3$; Find $f(x + 1)$

State the quadrant in which the terminal side of each angle lies.

77) $\frac{13\pi}{6}$

78) $-\frac{19\pi}{6}$

79) $-\frac{49\pi}{18}$

80) $\frac{\pi}{3}$

81) $-\frac{9\pi}{4}$

82) $-\frac{5\pi}{18}$

83) $\frac{5\pi}{18}$

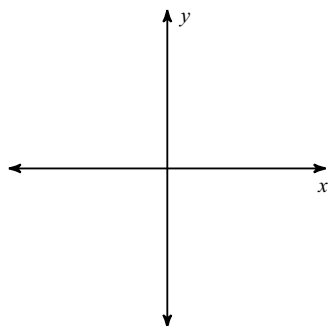
84) $\frac{31\pi}{9}$

85) $\frac{2\pi}{3}$

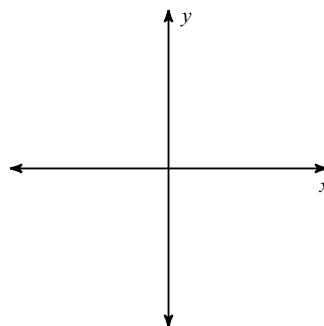
86) $\frac{35\pi}{9}$

Draw an angle with the given measure in standard position.

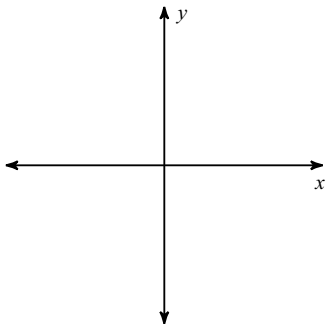
87) $\frac{3\pi}{4}$



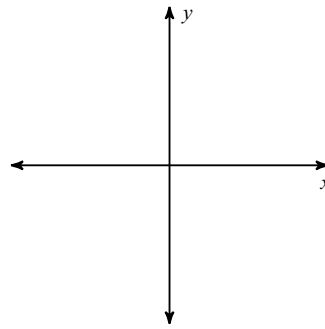
88) $\frac{4\pi}{3}$



89) $-\frac{13\pi}{9}$



90) $-\frac{7\pi}{4}$



Convert each degree measure into radians.

91) -330°

92) -310°

93) -660°

94) 780°

95) 45°

96) -45°

Convert each radian measure into degrees.

97) $\frac{\pi}{4}$

98) $-\frac{5\pi}{6}$

99) $\frac{17\pi}{6}$

100) $\frac{65\pi}{36}$

101) $-\frac{13\pi}{12}$

102) $-\frac{49\pi}{18}$

Find a positive and a negative coterminal angle for each given angle.

103) 325°

104) 330°

105) -10°

106) 660°

107) $-\frac{5\pi}{18}$

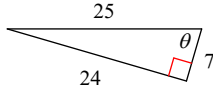
108) $\frac{\pi}{2}$

$$109) \frac{41\pi}{18}$$

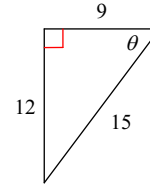
$$110) -\frac{19\pi}{36}$$

Find the value of the trig function indicated.

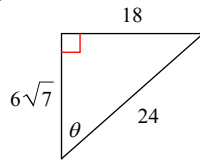
$$111) \tan \theta$$



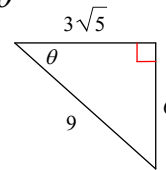
$$112) \sin \theta$$



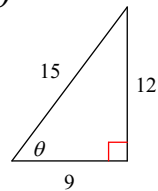
$$113) \csc \theta$$



$$114) \sin \theta$$



$$115) \cos \theta$$



$$116) \sec \theta$$

