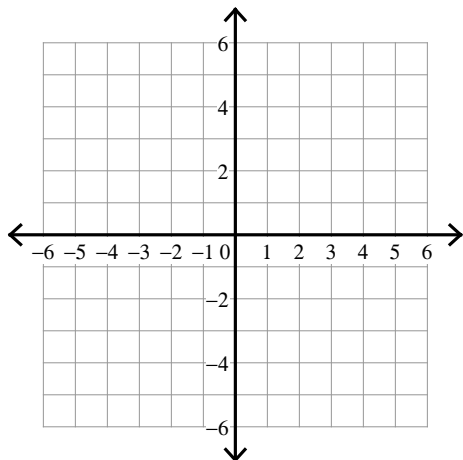


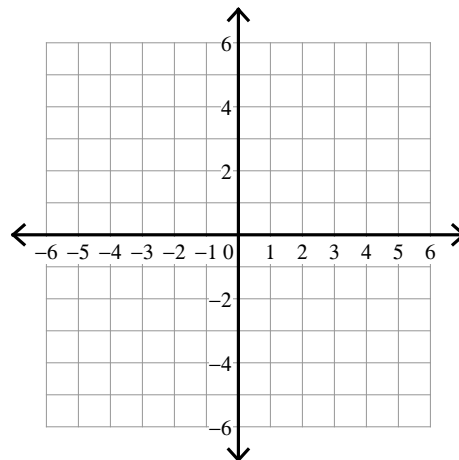
June Exam Review Material Set A

Graph each equation.

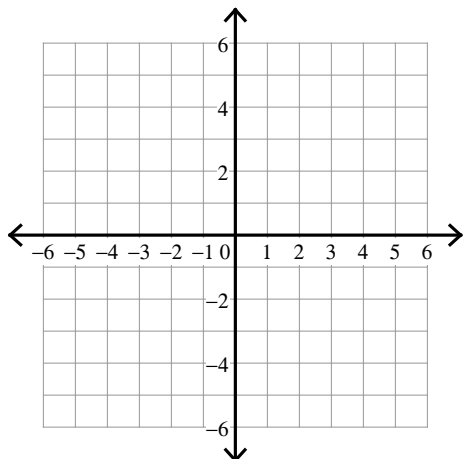
1) $y = |x + 4| + 2$



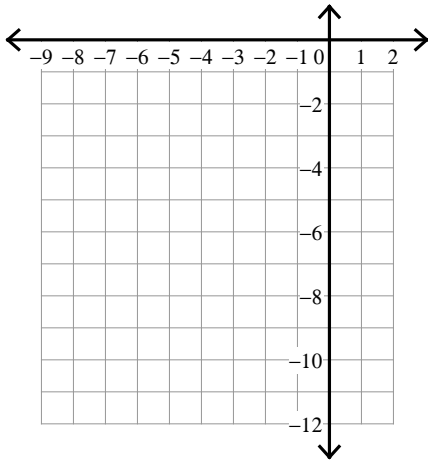
2) $y = |x - 4| + 1$



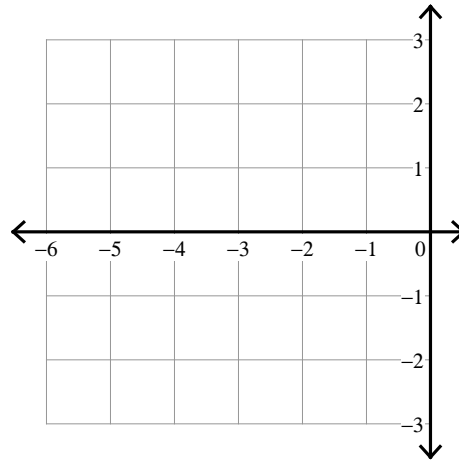
3) $y = |x - 3| - 3$

**Sketch the graph of each function.**

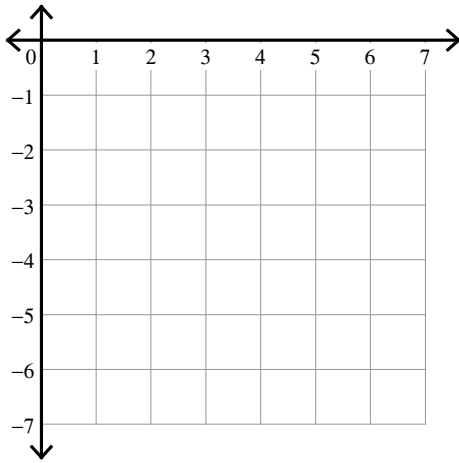
4) $y = -2x^2 - 16x - 35$



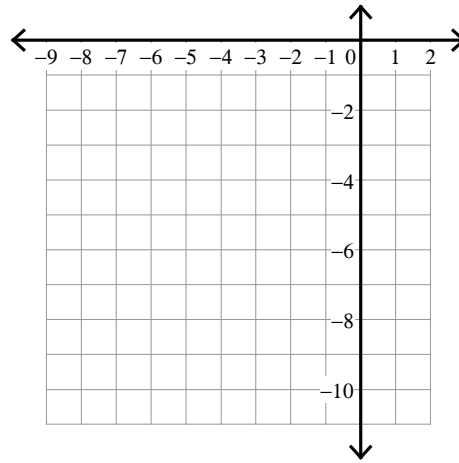
5) $y = -x^2 - 6x - 7$



6) $y = -x^2 + 8x - 18$



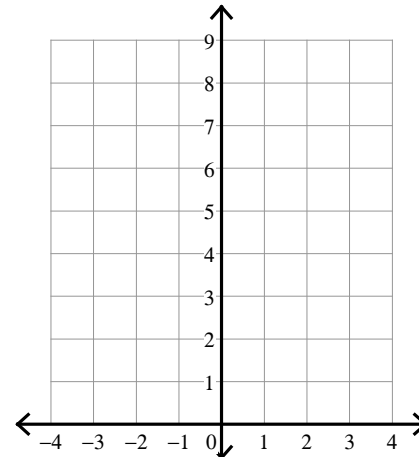
7) $y = -2x^2 - 16x - 34$



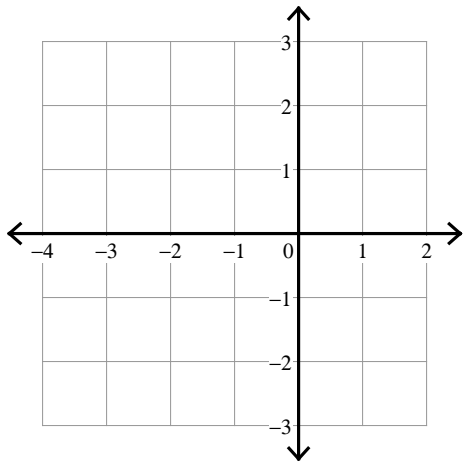
8) $\frac{1}{2}(y + 4) = (x - 1)^2$



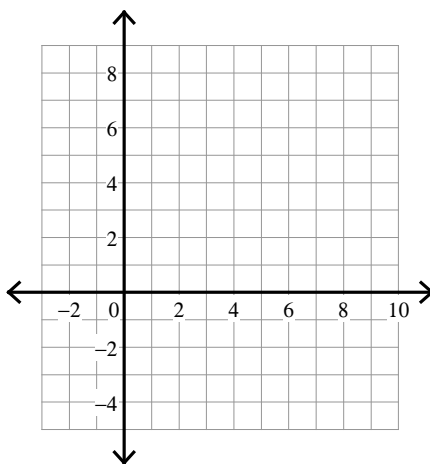
9) $y - 4 = (x - 1)^2$



$$10) y + 2 = (x + 2)^2$$

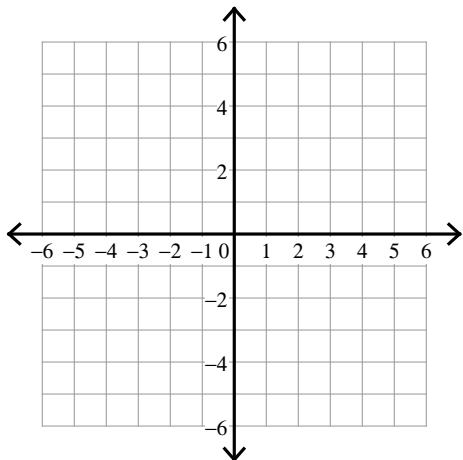


$$11) \frac{1}{3}(y + 4) = (x - 4)^2$$

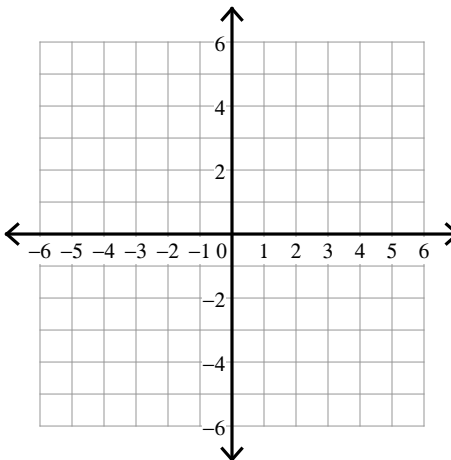


Sketch the graph of each line.

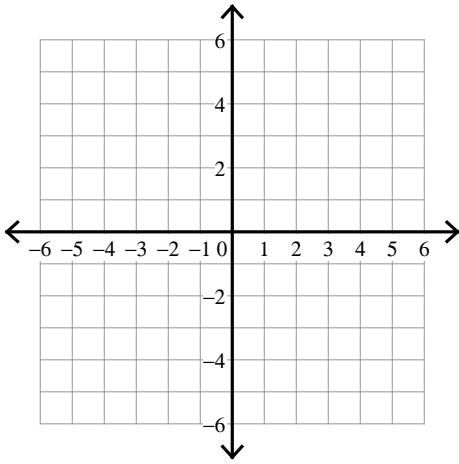
$$12) y = -3x$$



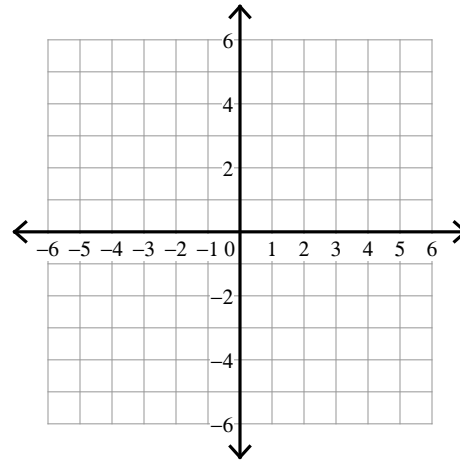
$$13) y = -x - 5$$



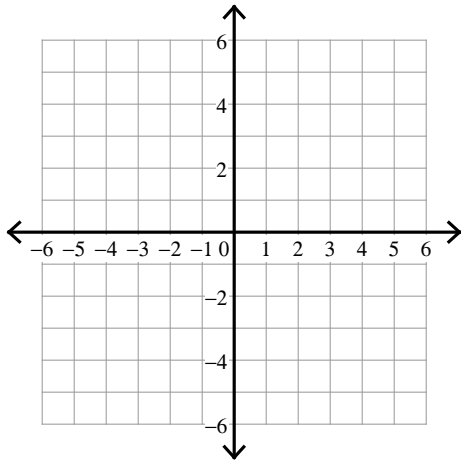
14) $8x - y = 5$



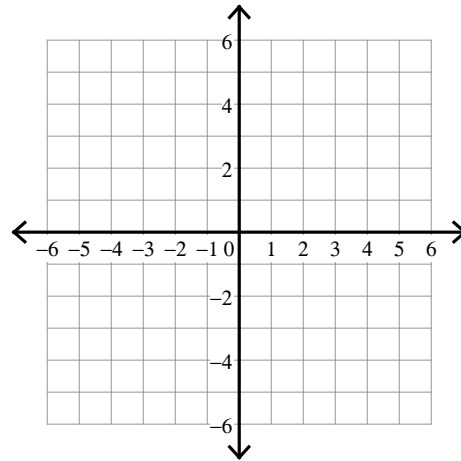
15) $4x - 3y = -15$



16) x-intercept = 2, y-intercept = -2

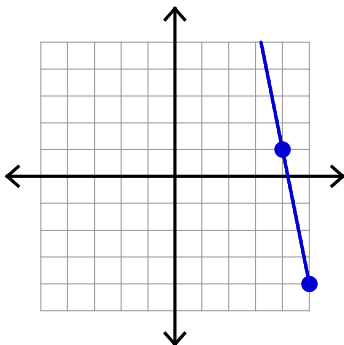


17) x-intercept = -4, y-intercept = 2

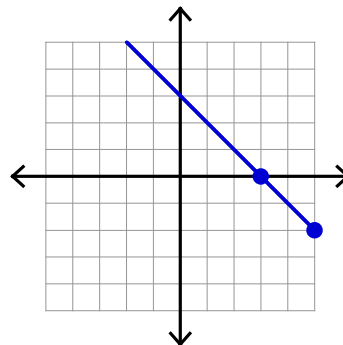


Find the slope of each line.

18)



19)



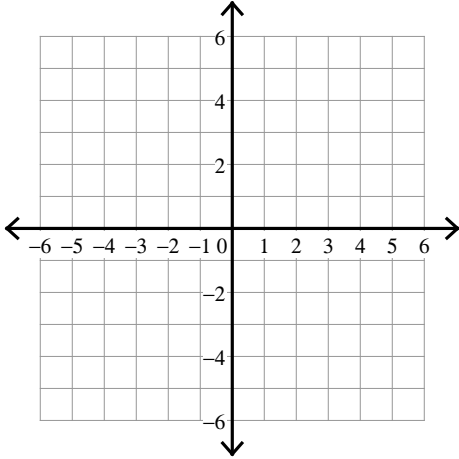
Find the slope of the line through each pair of points.

20) $(-11, -7), (15, 16)$

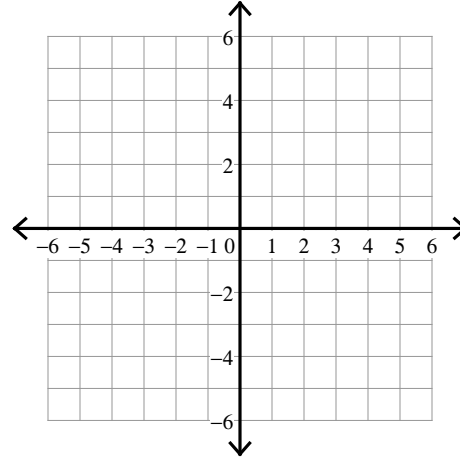
21) $(18, 0), (16, 6)$

Sketch the graph of each linear inequality.

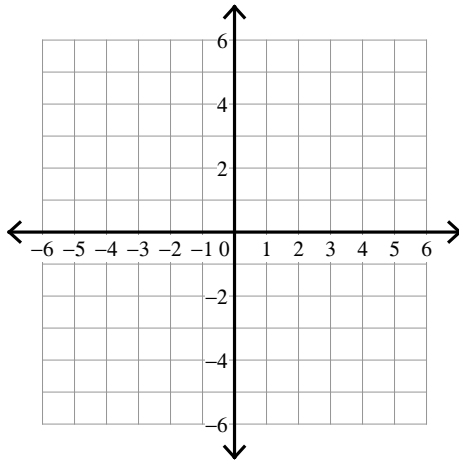
22) $3x - 2y > 4$



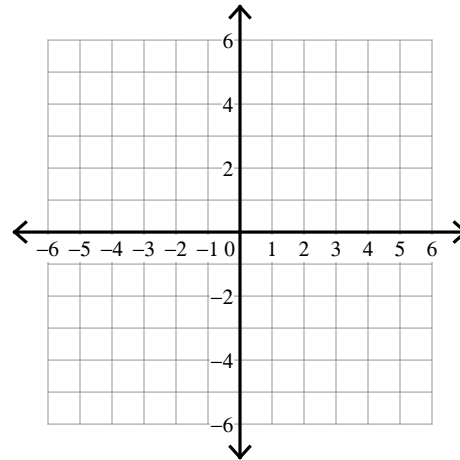
23) $2x - y \leq -4$



24) $y \geq 0$



25) $3x + y \geq -1$



Find the midpoint of the line segment with the given endpoints.

26) $(-7, 1), (6, -1)$

27) $(-4, 9), (-3, 8)$

Given the midpoint and one endpoint of a line segment, find the other endpoint.

28) Endpoint: $(-9, 1)$, midpoint: $(2, 9)$

29) Endpoint: $(-10, -8)$, midpoint: $(-9, 2)$

Simplify.

30) $\sqrt{6n^2} \cdot \sqrt{8n}$

31) $-2\sqrt{5n} \cdot 3\sqrt{20n^3}$

32) $\sqrt{10n^2} \cdot \sqrt{15n}$

33) $4\sqrt{15n^3} \cdot \sqrt{5n^3}$

34) $\sqrt{20n^3} \cdot \sqrt{5n}$

35) $\sqrt{12m} \cdot \sqrt{12m^2}$

36) $\sqrt{4k} \cdot \sqrt{25k^2}$

37) $\sqrt{10v^3} \cdot 3\sqrt{20v}$

38) $2\sqrt{15x^2} \cdot \sqrt{15x^2}$

39) $2\sqrt{2n} \cdot -4\sqrt{4n^2}$

40) $\sqrt{3x^3} \cdot \sqrt{15x^3}$

41) $-3\sqrt{15p^2} \cdot 3\sqrt{6p^3}$

42) $\sqrt{8p} \cdot -2\sqrt{10p^3}$

43) $-\sqrt{3n^2} \cdot \sqrt{2n^3}$

44) $\sqrt{5x^3} \cdot \sqrt{20x^2}$

45) $\sqrt{6x} \cdot 3\sqrt{15x^3}$

46) $3\sqrt{6p} \cdot -4\sqrt{12p^3}$

47) $\sqrt{12n^2} \cdot \sqrt{15n^3}$

48) $3\sqrt{6k} \cdot 2\sqrt{6k^2}$

49) $\sqrt{2x} \cdot \sqrt{5x^3}$

50) $\sqrt{5x} \cdot -4\sqrt{20x^3}$

51) $\sqrt{6x^2} \cdot \sqrt{25x}$

52) $\sqrt{6m^3} \cdot -3\sqrt{2m}$

53) $\sqrt{6k^2} \cdot -3\sqrt{6k^2}$

54) $\sqrt{10x^3} \cdot \sqrt{8x^2}$

55) $\sqrt{6n^2} \cdot 4\sqrt{6n^2}$

56) $-5\sqrt{8p^2} \cdot \sqrt{8p^3}$

57) $\sqrt{20v} \cdot \sqrt{15v^2}$

58) $4\sqrt{12m^2} \cdot \sqrt{6m^2}$

59) $\sqrt{10n^2} \cdot \sqrt{8n}$

60) $5\sqrt{10x^2} \cdot \sqrt{20x^3}$

61) $-2\sqrt{20x^2} \cdot -5\sqrt{5x}$

62) $3\sqrt{20m^2} \cdot \sqrt{12m}$

63) $\sqrt{4x^3} \cdot \sqrt{2x^3}$

64) $\sqrt{4x^3} \cdot -4\sqrt{10x^2}$

65) $-2\sqrt{15b^2} \cdot \sqrt{6b^3}$

66) $\sqrt{20x^2} \cdot \sqrt{20x^3}$

67) $\sqrt{3x^3} \cdot -3\sqrt{2x^2}$

68) $\sqrt{2b} \cdot -4\sqrt{2b^2}$

69) $2\sqrt{3b^2} \cdot 4\sqrt{2b^3}$

70) $2\sqrt{2r^3} \cdot 3\sqrt{3r^3}$

71) $\sqrt{3n^3} \cdot -4\sqrt{6n}$

72) $4\sqrt{6n} \cdot \sqrt{12n^2}$

73) $-2\sqrt{10x} \cdot 2\sqrt{10x^3}$

74) $\sqrt{35}(2 + \sqrt{15})$

75) $3\sqrt{6}(\sqrt{12} + 3)$

76) $-4\sqrt{3}(\sqrt{18} + 4)$

77) $8\sqrt{14}(6 + \sqrt{7})$

Solve each equation by factoring.

78) $k^2 + 13k + 40 = 0$

79) $4k^2 - 40k + 64 = 0$

80) $2p^2 - 4p - 30 = 0$

81) $a^2 - 8a + 15 = 0$

82) $6x^2 - 18x - 24 = 0$

83) $3x^2 + 45x + 168 = 0$

84) $6x^2 + 36x - 96 = 0$

85) $x^2 - 2x - 35 = 0$

86) $25b^2 + 30b - 7 = 0$

87) $35n^2 - 74n + 35 = 0$

88) $5x^2 - 37x - 24 = 0$

89) $2n^2 - 5n - 42 = 0$

Simplify.

90) $2\sqrt{20} - \sqrt{24} + 2\sqrt{24}$

91) $2\sqrt{3} - 2\sqrt{12} - 2\sqrt{12}$

92) $2\sqrt{54} - \sqrt{24} + 2\sqrt{3}$

93) $2\sqrt{8} - \sqrt{18} - 2\sqrt{54}$

94) $-\sqrt{3} - \sqrt{6} - 3\sqrt{27}$

95) $-\sqrt{3} - \sqrt{3} + 2\sqrt{5}$

96) $\frac{3\sqrt{6}}{2\sqrt{5}}$

97) $\frac{\sqrt{7}}{3\sqrt{5}}$

98) $\frac{\sqrt{28}}{8\sqrt{35}}$

99) $\frac{\sqrt{49}}{\sqrt{42}}$

100) $-7\sqrt{64x^2y}$

101) $-7\sqrt{216xy^3}$

102) $-6\sqrt{27xy^4}$

103) $5\sqrt{108m^2n^3}$

104) $-8\sqrt{32u^2v}$

105) $-6\sqrt{27x^3y^2}$

106) $4\sqrt{100x^2y^2}$

107) $-\sqrt{288x^4y^3}$

Find the value of x or y so that the line through the points has the given slope.

108) (6, y) and (4, 7); slope: $-\frac{3}{2}$

109) (-9, -6) and (x, 3); slope: $\frac{1}{2}$

110) (7, y) and (-2, 5); slope: $-\frac{4}{3}$

111) (5, y) and (-2, 6); slope: $-\frac{5}{7}$

Solve each system by elimination.

112) $7x - 9y = 4$
 $-7x - 7y = 28$

113) $-10x + 2y = -8$
 $-7x - 2y = 25$

114) $6x + 3y = 21$
 $-6x - y = -3$

115) $3x - 2y = 24$
 $-3x + 5y = -15$

116) $-3x - 7y = -28$
 $-3x + 9y = -12$

117) $-5x + 2y = 0$
 $-x + 2y = 16$

Solve each system by substitution.

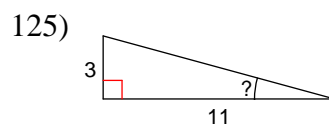
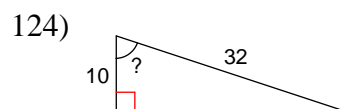
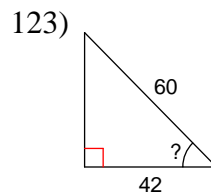
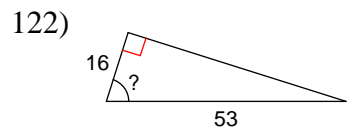
118) $y = 2x - 17$
 $y = -5$

119) $y = 2x$
 $y = 7x - 15$

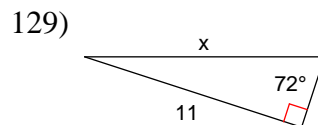
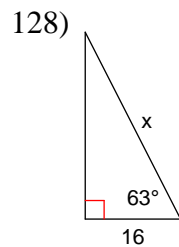
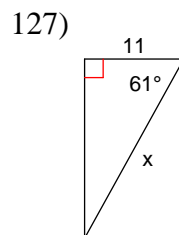
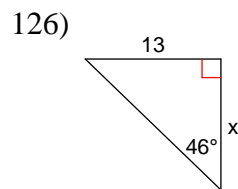
120) $y = 5x + 13$
 $y = 4x + 12$

121) $y = 3x + 7$
 $y = 4x + 10$

Find the measure of the indicated angle to the nearest degree.



Find the missing side. Round to the nearest tenth.



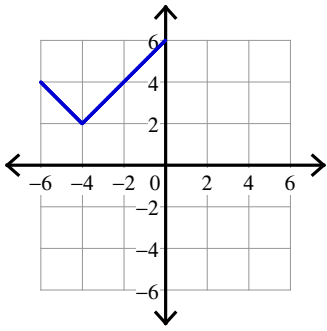
- 130) Mei left the movie theater and traveled east at an average speed of 50 km/h. Castel left one hour later and traveled in the same direction but with an average speed of 75 km/h. Find the number of hours Mei traveled before Castel caught up.
- 131) Abhasra and Danielle left the hardware store at the same time. They drove in opposite directions. Danielle drove 10 mph faster than Abhasra. After three hours they were 150 mi. apart. Find Abhasra's speed.
- 132) A submarine made a trip to Guam and back. The trip there took three hours and the trip back took ten hours. It averaged 14 mph faster on the trip there than on the return trip. What was the submarine's average speed on the outbound trip?
- 133) Perry traveled to his cabin on the lake and back. It took one hour longer to go there than it did to come back. The average speed on the trip there was 48 mph. The average speed on the way back was 60 mph. How many hours did the trip there take?
- 134) Julio and Brenda are selling wrapping paper for a school fundraiser. Customers can buy rolls of plain wrapping paper and rolls of shiny wrapping paper. Julio sold 12 rolls of plain wrapping paper and 7 rolls of shiny wrapping paper for a total of \$144. Brenda sold 4 rolls of plain wrapping paper and 12 rolls of shiny wrapping paper for a total of \$164. Find the cost each of one roll of plain wrapping paper and one roll of shiny wrapping paper.
- 135) The school that John goes to is selling tickets to the annual dance competition. On the first day of ticket sales the school sold 4 adult tickets and 1 child ticket for a total of \$28. The school took in \$200 on the second day by selling 8 adult tickets and 14 child tickets. Find the price of an adult ticket and the price of a child ticket.
- 136) When you reverse the digits in a certain two-digit number you decrease its value by 54. Find the number if the sum of its digits is 12.

Solve each question. Round your answer to the nearest hundredth.

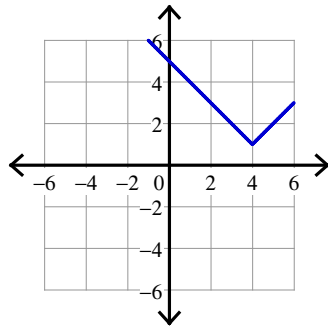
- 137) Working alone, Bill can dig a 10 ft by 10 ft hole in ten hours. Stephanie can dig the same hole in eight hours. If they worked together how long would it take them?
- 138) It takes Jaidee 12 hours to mop a warehouse. Abhasra can mop the same warehouse in 8 hours. If they worked together how long would it take them?

Answers to June Exam Review Material Set A

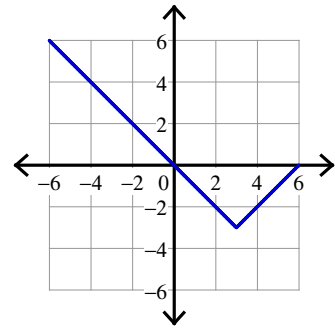
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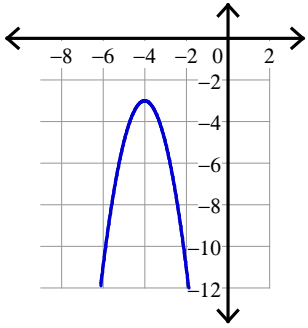
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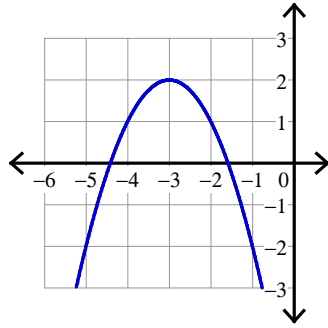
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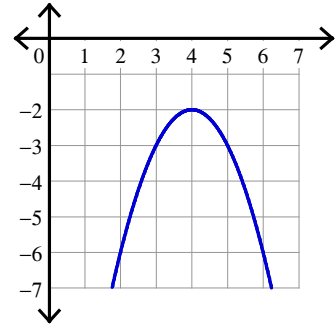
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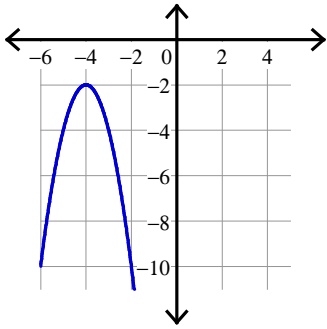
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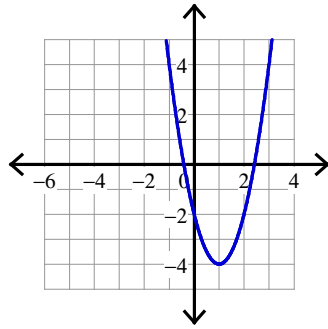
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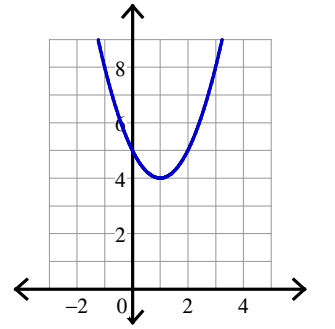
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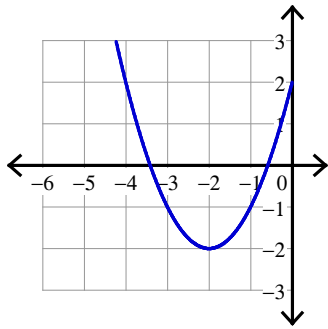
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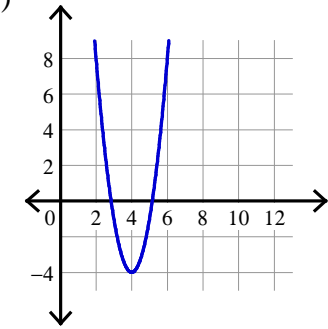
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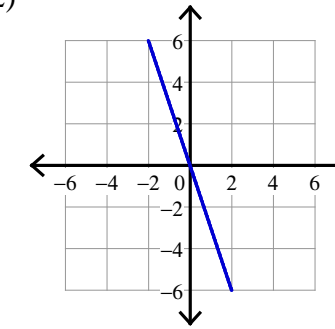
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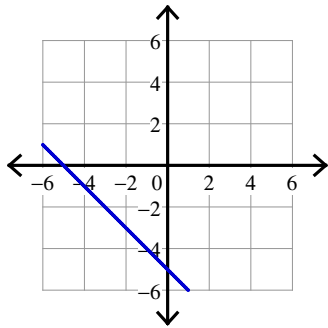
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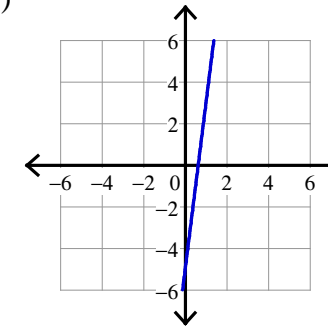
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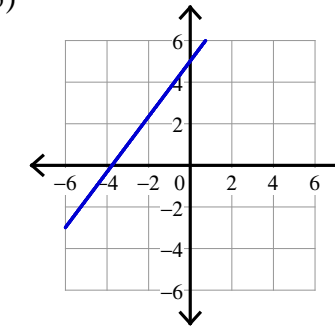
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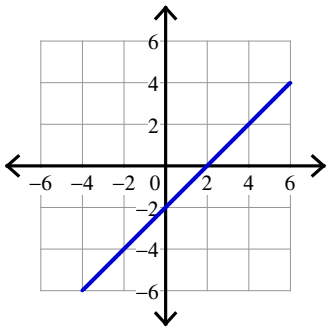
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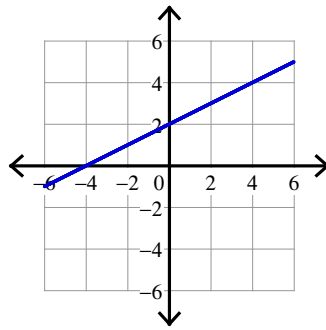
15)



16)



17)



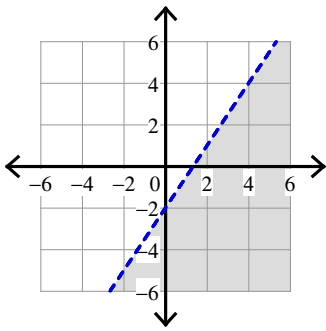
18) -5

19) -1

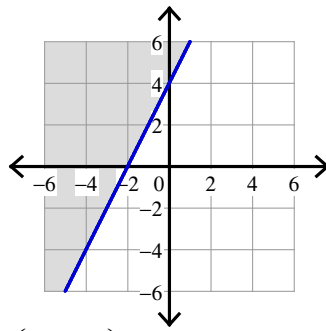
20) $\frac{23}{26}$

21) -3

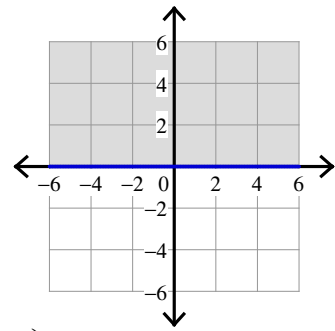
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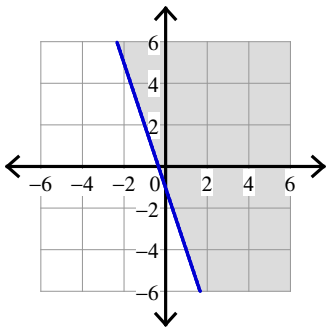
23)



24)



25)

26) $\left(-\frac{1}{2}, 0\right)$ 27) $\left(-3\frac{1}{2}, 8\frac{1}{2}\right)$

28) (13, 17)

29) (-8, 12)

30) $4n\sqrt{3n}$ 31) $-60n^2$ 32) $5n\sqrt{6n}$ 33) $20n^3\sqrt{3}$ 34) $10n^2$ 35) $12m\sqrt{m}$ 36) $10k\sqrt{k}$ 37) $30v^2\sqrt{2}$ 38) $30x^2$ 39) $-16n\sqrt{2n}$ 40) $3x^3\sqrt{5}$ 41) $-27p^2\sqrt{10p}$ 42) $-8p^2\sqrt{5}$ 43) $-n^2\sqrt{6n}$ 44) $10x^2\sqrt{x}$ 45) $9x^2\sqrt{10}$ 46) $-72p^2\sqrt{2}$ 47) $6n^2\sqrt{5n}$ 48) $36k\sqrt{k}$ 49) $x^2\sqrt{10}$ 50) $-40x^2$ 51) $5x\sqrt{6x}$ 52) $-6m^2\sqrt{3}$ 53) $-18k^2$ 54) $4x^2\sqrt{5x}$ 55) $24n^2$ 56) $-40p^2\sqrt{p}$ 57) $10v\sqrt{3v}$ 58) $24m^2\sqrt{2}$ 59) $4n\sqrt{5n}$ 60) $50x^2\sqrt{2x}$ 61) $100x\sqrt{x}$ 62) $12m\sqrt{15m}$ 63) $2x^3\sqrt{2}$ 64) $-8x^2\sqrt{10x}$ 65) $-6b^2\sqrt{10b}$ 66) $20x^2\sqrt{x}$ 67) $-3x^2\sqrt{6x}$ 68) $-8b\sqrt{b}$ 69) $8b^2\sqrt{6b}$ 70) $6r^3\sqrt{6}$ 71) $-12n^2\sqrt{2}$ 72) $24n\sqrt{2n}$ 73) $-40x^2$ 74) $2\sqrt{35} + 5\sqrt{21}$ 75) $18\sqrt{2} + 9\sqrt{6}$ 76) $-12\sqrt{6} - 16\sqrt{3}$ 77) $48\sqrt{14} + 56\sqrt{2}$ 78) $\{-5, -8\}$ 79) $\{2, 8\}$ 80) $\{-3, 5\}$ 81) $\{3, 5\}$ 82) $\{-1, 4\}$ 83) $\{-8, -7\}$ 84) $\{-8, 2\}$ 85) $\{7, -5\}$ 86) $\left\{\frac{1}{5}, -\frac{7}{5}\right\}$ 87) $\left\{\frac{7}{5}, \frac{5}{7}\right\}$ 88) $\left\{-\frac{3}{5}, 8\right\}$ 89) $\left\{-\frac{7}{2}, 6\right\}$ 90) $4\sqrt{5} + 2\sqrt{6}$ 91) $-6\sqrt{3}$ 92) $4\sqrt{6} + 2\sqrt{3}$ 93) $\sqrt{2} - 6\sqrt{6}$ 94) $-10\sqrt{3} - \sqrt{6}$ 95) $-2\sqrt{3} + 2\sqrt{5}$

96) $\frac{3\sqrt{30}}{10}$

100) $-56x\sqrt{y}$

104) $-32u\sqrt{2v}$

108) 4

112) (-2, -2)

116) (7, 1)

120) (-1, 8)

124) 72°

128) 35.2

132) 20 mph

134) roll of plain wrapping paper: \$5, roll of shiny wrapping paper: \$12

135) adult ticket: \$4, child ticket: \$12

138) 4.8 hours

97) $\frac{\sqrt{35}}{15}$

101) $-42y\sqrt{6xy}$

105) $-18xy\sqrt{3x}$

109) 9

113) (-1, -9)

117) (4, 10)

121) (-3, -2)

125) 15°

129) 11.6

133) 5 hours

98) $\frac{\sqrt{5}}{20}$

102) $-18y^2\sqrt{3x}$

106) $40xy$

110) -7

114) (-1, 9)

118) (6, -5)

122) 72°

126) 12.6

130) 3 hours

136) 93

99) $\frac{\sqrt{42}}{6}$

103) $30mn\sqrt{3n}$

107) $-12x^2y\sqrt{2y}$

111) 1

115) (10, 3)

119) (3, 6)

123) 46°

127) 22.7

131) 20 mph

137) 4.44 hours