

Summer Assignment 2018

Solve each equation.

1) $0 = -x + 6x$

2) $4 = 2n + 2n$

3) $2x + 6x = 16$

4) $2 - 2b - 6b = -14$

5) $4 + 2r - 1 = 11$

6) $x + 2 = 2 + 7 + 2x - 2$

7) $1 + 2n = 4 + 2n$

8) $7n + 6 + 6 = 16 + n + 6 - 4$

9) $2 + k - 6k = 2 - k$

10) $6x - 6 = 6 + 4x + 5x$

11) $159 = 5 - 7(5x - 2)$

12) $-5(7x - 1) = -170$

13) $-160 = 4(5v - 5)$

14) $-4(-3k + 5) = -92$

15) $-2(6n + 6) = -96$

16) $3(5 + r) = 12 - 8(r + 1)$

17) $-11(-b - 7) + 6(1 - b) = 1 + 12b + 12$

18) $6 + 6(1 - 10b) = -6(7b + 4)$

19) $-3(7 + 12v) + 8v = -3(12v - 9)$

20) $-9(-1 - 5n) = 6(12 + 11n)$

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

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

22) through: $(5, 1)$, slope = $\frac{4}{7}$

23) through: $(-3, 2)$, slope = $-\frac{4}{3}$

24) through: $(-4, 1)$, slope = undefined

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

25) through: $(0, 5)$ and $(2, -2)$

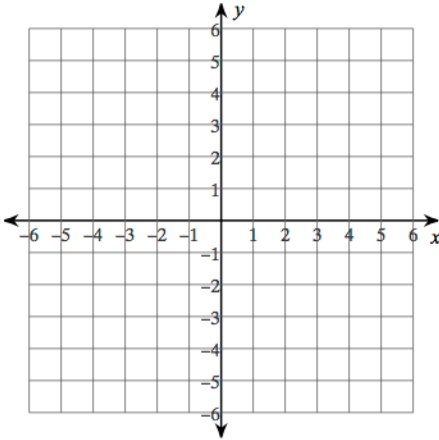
26) through: $(4, -1)$ and $(1, 4)$

27) through: $(-1, -3)$ and $(-3, 0)$

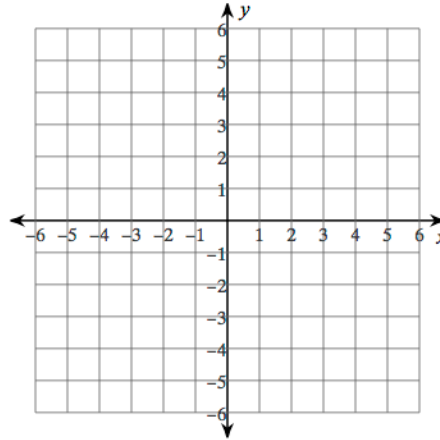
28) through: $(5, 0)$ and $(-3, 2)$

Sketch the graph of each line.

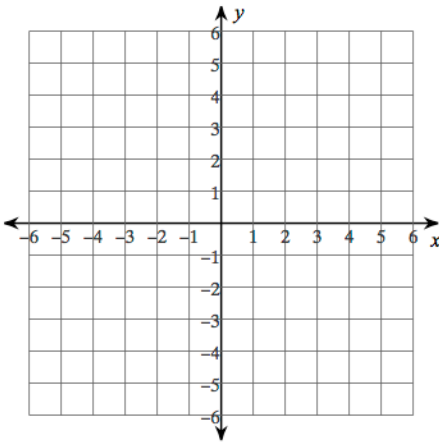
29) $3x + 4y = -4$



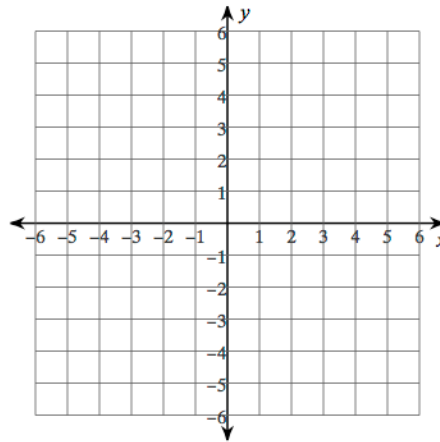
30) $3x + 2y = 2$



31) $3x - 2y = 0$



32) $x - 4y = 20$



Simplify.

33) $5\sqrt{810}$

34) $7\sqrt{175}$

35) $3\sqrt{81}$

36) $-5\sqrt{6}(4 + \sqrt{2})$

37) $\sqrt{5}(5 + \sqrt{10})$

38) $\frac{3\sqrt{2}}{\sqrt{50}}$

39) $\frac{2\sqrt{2}}{4\sqrt{8}}$

40) $\frac{2\sqrt{16}}{3\sqrt{4}}$

Solve each proportion.

41) $\frac{2}{a} = \frac{5}{3}$

42) $\frac{5}{p} = \frac{7}{2}$

43) $\frac{8}{5} = \frac{5}{x}$

44) $\frac{8}{v} = \frac{5}{8}$

45) $\frac{2}{6} = \frac{7}{v}$

46) $\frac{6}{3} = \frac{p}{4}$

47) $\frac{8}{7} = \frac{n-3}{5}$

48) $\frac{12}{4} = \frac{7}{x-4}$

49) $\frac{7}{10} = \frac{n+3}{6}$

50) $\frac{9}{x-8} = \frac{12}{3}$

51) $\frac{9}{v-4} = \frac{4}{v}$

52) $\frac{x}{3} = \frac{x-4}{4}$

53) $\frac{8}{v+8} = \frac{7}{v}$

54) $\frac{3}{8} = \frac{p}{p-6}$

55) $\frac{x-1}{2} = \frac{x}{8}$

56) $\frac{p-3}{p} = \frac{5}{7}$

Factor Completely.

57) $b^2 + 16b + 64$

58) $k^2 - 13k + 40$

59) $3p^2 - 2p - 5$

60) $m^2 + m - 90$

61) $5n^2 + 19n + 12$

62) $2n^2 + 5n + 2$

Solve.

63) $(k + 1)(k - 5) = 0$

64) $(2m + 3)(4m + 3) = 0$

65) $(a + 1)(a + 2) = 0$

66) $x^2 - 11x + 19 = -5$

67) $3r^2 - 16r - 7 = 5$

68) $10b^2 = 27b - 18$

69) $7x^2 + 2x = 0$

70) $n^2 + 8n = -15$