

**GEOMETRY A /GEOMETRY B****SUMMER ENRICHMENT**

Welcome to Geometry! We look forward to meeting you in a few months. Below are the skills you learned this year in Algebra 1 that are necessary for success in Geometry and this is intended as an opportunity for you to keep these skills up over summer.

Enjoy your summer,  
Your Geometry Teachers

**SOLVE THE EQUATION (SHOW YOUR WORK)**

1.)  $x + 12 = 25$

2.)  $a - 6 = 0$

3.)  $-42 = -7c$

4.)  $\frac{1}{2}n = 10$

5.)  $-32y = 4$

6.)  $-\frac{3}{4}x = 24$

7.)  $w - 5 = -13$

8.)  $4.6 + y = 2.6$

9.)  $a - \frac{1}{8} = \frac{5}{8}$

10.)  $3y - 4 = 20$

11.)  $75 + 7c = 2c$

12.)  $11r + 120 = -r$

13.)  $\frac{3}{5}n + 12 = 2n - 9$

14.)  $\frac{1}{4}w + 27 = 41$

15.)  $4 - 6p = 2p - 3$

16.)  $5(x + 3) = 12$

17.)  $7(a - 3) = 8a + 2$

18.)  $x - (-4x + 2) = 13$

19.)  $-\frac{1}{2}(16 - 2y) = 11$

20.)  $7(4c + 1) - 2(2c - 3) = -23$

21.)  $x^2 + 4 = 20$

22.)  $5x^2 = 320$

23.)  $2x^2 - 3 = x^2 + 84$

**SIMPLIFY EACH EXPRESSION BY FOILING (Double Distribution)**

24.)  $(x + 4)(x - 5)$

25.)  $(4x - 9)(x - 2)$

26.)  $(2x + 1)(3x + 2)$

27.)  $(x + 2)(x + 2)$

**USE THE QUADRATIC FORMULA TO SOLVE EACH EQUATION**

28.)  $x^2 + 2x - 3 = 0$

29.)  $2x^2 + 4x - 1 = 0$

30.)  $3x^2 - 2x - 6 = 0$

31.)  $x^2 - 6x + 9 = 0$

**FINDING AREAS OF FIGURES**

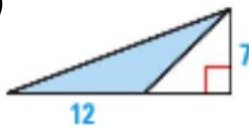
Circle:  $A = \pi r^2$

Square:  $A = s^2$

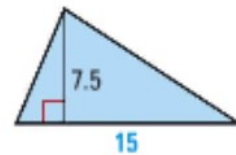
Rectangle:  $A = lw$

Triangle:  $A = \frac{1}{2}bh$

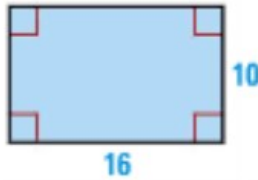
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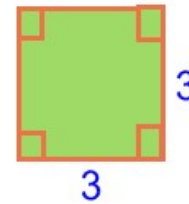
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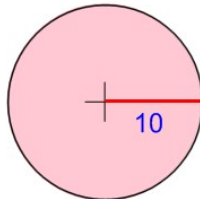
34.)



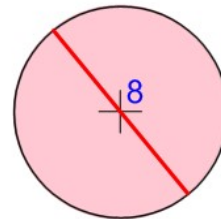
35.)



36.)



37.)



**Graph the following equation.**

38.)  $y = \frac{1}{2}x + 4$

39.)  $y = 2x - 4$

40.)  $y = -3x + 5$

41.)  $-\frac{2}{3}x + y = 0$

**Write an equation in slope – intercept form of the line that passes through the given 2 points.**

42.) (1, 2) (3, -2)

43.) (0, -3) (-5, 0)

**Simplify the fractions.**

44.)  $\frac{2}{8} + \frac{1}{8}$

45.)  $\frac{3}{7} + \frac{11}{14}$

46.)  $\frac{1}{3} - \frac{5}{8}$

47.)  $\frac{4}{3} \times \frac{2}{5}$

48.)  $\frac{10}{17} \times \frac{3}{25}$

49.)  $\frac{4}{5} \div \frac{2}{3}$

50.)  $\frac{7}{8} \div \frac{6}{2}$

51.)  $\frac{9}{10} \div \frac{10}{9}$

52.)  $2 \div \frac{4}{9}$

**Solve the following Systems by Substitution:**

53.)  $x + 2y = 1$   
 $5x - 4y = -23$

54.)  $6x - 3y - 4 = 0$   
 $x + 2y - 4 = 0$

55.)  $2x + y = 4$   
 $-4x + 2y = -12$

56.)  $x + 3y = 11$   
 $2x - 5y = -11$

**Solve the following Systems by Elimination:**

57.)  $2x + 5y = 8$   
 $5x + 8y = 10$

58.)  $4x - 3y = 6$   
 $-5x + 7y = -1$

59.)  $7x + 3y = 16$   
 $y = x + 1$

60.)  $\frac{2}{3}x + \frac{1}{6}y = \frac{2}{3}$   
 $4x + y = 4$

**Cross Multiplication:**

61.)  $\frac{7x}{6} = \frac{5}{2}$

62.)  $\frac{x}{70} = \frac{3}{10}$

63.)  $\frac{6}{x+2} = \frac{4}{x-4}$

64.)  $\frac{3}{x+8} = \frac{3}{5(x+1)}$

65.)  $\frac{9}{a-3} = \frac{3}{a+5}$

66.)  $\frac{x-8}{x+4} = \frac{1}{5}$