

Review Packet for Incoming Geometry c/p and Geometry/Trig Honors Students
Geometry/Trig Honors students are also responsible for additional work # 76 – 90
All work is to be shown and stapled to the review. It will be checked on the second day of class.

Name _____ Teacher _____

Simplify

1. $-3 + (-8) + 12$

2. $13 - 7 - 15$

3. $(8)(-6)(-1)$

4. $-150 \div -6$

5. $\frac{-5}{6} - \frac{5}{9}$

6. $\frac{-3}{8} \cdot \frac{-4}{15}$

7. $\frac{-5}{12} \div \frac{15}{36}$

8. $(-2)(2)^2$

9. $(-3)^3(-2)^2$

10. $-15 + 23 - 8$

Solve for x

11. $7x - 5 = 2x - 20$ 12. $-x - 4 = -3x - 16$ 13. $5x + 2(3x + 1) = 3x + 5$

14. $5[2 - (2x - 4)] = 2(5 - 3x)$ 15. $4(x + \frac{1}{2}) = 8(x + \frac{3}{4})$

16. $7x - 2(x + 6) = -2$ 17. $\frac{x+3}{12} = \frac{5}{6}$ 18. $\frac{9}{x+2} = \frac{3}{x-2}$

19. $\frac{x}{3} + \frac{4}{5} = 2x - \frac{5}{6}$

Solve and graph on a number line

20. $8x \leq 7x - 4$ 21. $-3x + 7 < 2$ 22. $7 - \frac{1}{2}x \leq 1$ 23. $3x \geq 12$ Or $4x \leq 10$

24. $11 \leq x + 3 < 14$

Find the slope and the y intercept for each equation below

25. $3x + 2y = 8$

26. $y = -2x + 7$

27. $x = 3$

28. $y = 3$

29. $x + y = 3$

Given the two points, find the slope

30. $(5, -1)$ and $(3, 2)$

31. $(-3, -6)$ and $(9, 2)$

32. $(7, 3)$ and $(-2, 5)$

33. $(7, 2)$ and $(7, 5)$

34. $(0, -1)$ and $(2, -1)$

For # 35 – 39, write the equation of the line connecting the points in

A. Point Slope form

B. Slope Intercept form

C. Standard form

40. *Given the equation, $y = 3x + 7$, what is the slope of the line parallel to this line?*

41. *Given the equation, $2x + y = 8$, what is the slope of the line perpendicular to this line?*

42. What is the slope of a line that is parallel to a vertical line?

43. What is the slope of a line perpendicular to a horizontal line?

Using graph paper, graph each of the following

44. $y = 2x + 1$

45. $3x + y = 9$

46. $2x + 4y = 8$

47. $y = 3$

48. $x = -3$

Factor

49. $7x^2 + 21$

50. $25ab^4 + 20a^3b^2$

51. $4x^3y - 16x^3 + 24y$

52. $3x^2t^3 + 15xt^2$

53. $mr + 3m + 2r + 6$

54. $xy + 5x + 3y + 15$

55. $x^2 - 49$

56. $4x^2 - 25$

57. $x^2 + 6x + 9$

58. $49x^2 - 4y^2$

59. $x^2 + 14x + 24$

60. $x^2 + 6x + 8$

61. $x^2 + 10x - 39$

62. $x^2 - x - 6$

Factor completely

63. $4x^2 - 4$

64. $2x^2 + 4x + 24$

65. $3x^2 - 6x - 45$

Solve by factoring and using the zero product property

66. $(x + 1)(x - 5) = 0$

67. $x^2 + 13x + 22 = 0$

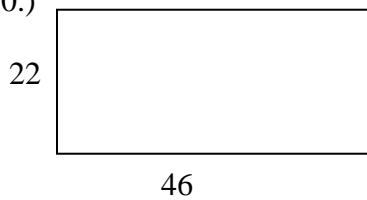
68. $x^2 - 3x = 18$

69. $x^2 - 2x - 15 = 0$

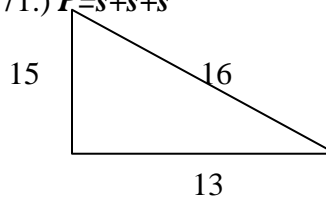
Basic Geometry and using formulas.

Find the perimeter. $P=2l+2w$

70.)



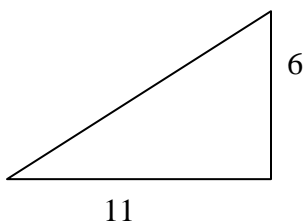
71.) $P=s+s+s$



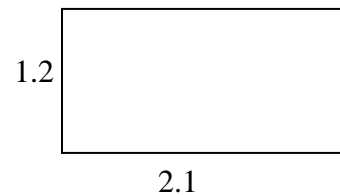
Find the area.

72.)

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



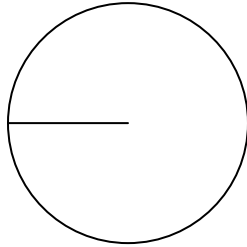
73.) $A=bh$



Find the a.) circumference and b.) area. $C = \pi d$ or $2\pi r$, $A = \pi r^2$

74.)

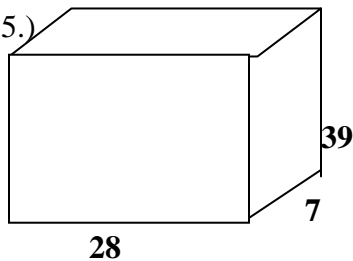
Radius = 3



Volume

$$V = lwh$$

75.)



FOR GEOMETRY/ TRIG HONORS STUDENTS ONLY

Solve each absolute value equation

76. $|x + 5| = 7$

77. $|2x - 3| = 9$

78. $2|x - 8| = -4$

Solve and graph on a number line the following absolute value inequalities

79. $|3x - 2| < 7$

80. $|x + 9| > -6$

81. $|4x - 2| \geq 0$

Write an equation and solve:

82. The difference between twelve and the product of five and a number is 7. Find the number.

83. Three times the sum of a number and 4 is 15. Find the number.

84. The sum of two different numbers is 16. If the smaller number is 2 less than the larger number, find both numbers.

Solve each system by BOTH elimination and substitution

85.
$$\begin{cases} 3x + y = 13 \\ 2x - y = 2 \end{cases}$$

86.
$$\begin{cases} y = -3x \\ x - 6y = 38 \end{cases}$$

87.
$$\begin{cases} 2x + 3y = 4 \\ -4x - 6y = -8 \end{cases}$$

Graph each absolute value function and state the domain and range.

88. $y = |x - 3| - 2$

89. $y = 2|x + 1| - 5$

Graph the system of inequalities and label the solution set S

90.
$$\begin{cases} x - 2y \leq 8 \\ x + y \geq 5 \end{cases}$$