

Due: _____

Honors Algebra 2
Chapter 1 Worksheet

Name: _____

All work must be shown. No Calculator.

1. Find the value: $6 + 8^2 \div 4 - 2$

2. Evaluate: $\frac{3a^2 + 2b^2}{c^2}$ if $a = 1$, $b = 2$ and $c = -3$

3. Solve for the given variable.

The formula to find the volume of a cone is $V = \frac{1}{3}\pi r^2 h$, where V is the volume, r is the radius of the base and h is the height.
Resolve the formula for h .

Simplify to following expressions:

4. $3(2x - 7) - 2(x + 3)$

5. $\frac{1}{5}(10x + 15) - 2(2x - 5)$

6. $.75(12x - 8) + 1.4(5x + 15)$

Solve the following equations and inequalities:

7. $-6(x - 8) = 4x + 18$

8. $\frac{1}{2}x - \frac{1}{3} = \frac{3}{2}x + 1$

9. $|3x - 5| = -7$

10. $3x - 5 > 31$

11. $4|x - 8| \leq 12$

12. Write an equation to solve the following problem:
“The width of a rectangle is 3 meters more than its length. The perimeter is 26 meters, find the length.” (Note: **Just write an equation, do not solve.**)

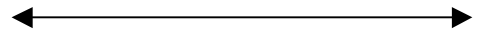
Solve the following

13. Frank ordered Bulldog tickets that cost \$8 for students and \$15 for adults. He ordered 10 more student tickets than adults. His total bill was \$195. How many of each type did he get?

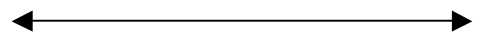
14. A parking garage charges \$5 for the first three hours and \$2 for each additional hour (portion of hours are not considered). Fran has \$10 to spend for parking. How many hours can Fran park her car?

15. Use $I = Prt$, the formula to calculate the interest over t **years**, find I when $p = \$2500$, $r = 2.5\%$, and $t = 36$ **MONTHS**.

16. Solve and graph the compound sentence: $-11 < 4x - 7 < 13$



17. Solve and graph the inequality: $|2x + 1| \geq 9$



18. Write the following absolute value equation for the given graph.

