

Name _____



Watertown Public Schools Algebra 2 Honors/CP Summer Packet



This packet contains topics that you are expected to know prior to entering Algebra 2. You have learned these skills over the past few years. These examples focus on both mathematical skills and problem solving. Algebra II is a critical course and one of the best predictors of college success. Mastery of the problem solving skills outlined in this packet are a critical baseline for your success. This packet should be completed independently and **turned in with completed work on the first day of school.** Upon your completion, your parent/guardian needs to sign the packet.

A TI-83 or TI-84 graphing calculator is **HIGHLY recommended** for Algebra II

Below are helpful links to help you remember some topics.

Algebra Resources

- **Khan Academy** Take control of your learning by working on the skills you choose at your own pace. ... Math, science, computer programming, history, art, economics, and more.
- **Algebasics** has video tutorials explaining the basics of algebra, equations, ratio and proportion, absolute value, polynomials, factoring, linear equations, radicals, applications, and much more.
- **Algebra-Class.com** offers help with solving equations, graphing equations, writing equations, inequalities, functions, exponents and monomials, polynomials, and the quadratic equation. It also has a list of resources.
- **Algebra.help** contains lessons on topics that include equations, simplifying, factoring, distribution, and trinomials, as well as equation calculators and worksheets. This site also has an extensive list of math resources and study tips.
- **Algebra Help** covers topics such as fractions, percents, decimals, algebraic expressions, addition, multiplication, and word problems. Each section includes explanations and examples.
- **College-Cram.com** allows students to choose the algebra subject they are struggling with from a drop down menu, select the appropriate chapter, and pick your resources. The pages will feature formula solvers, bottomless worksheets, flashcards, quizzes, interactive overviews, and brief lessons and study sheets.
- **Interactive Mathematics** has a large section on algebra, including information on factoring and fractions, the quadratic equation, exponents and radicals, systems of equations, matrices and determinants, and inequalities.
- **Math Expression** has videos, worksheets, and lessons to help you develop your algebra skills. Math topics include algebra, exponents, symmetry, fractions, measurements, angles, and more. The site also includes a list of useful resources.
- **Purplemath** contains lessons with explanations on everything from absolute value and negative numbers to intercepts, variables, and factoring. In addition, this site includes a forum that allows students to ask questions and receive answers, as well as a list of homework tips and guidelines.

The packet is expected to be completed for the first day of class.

Must show your work in the packet.

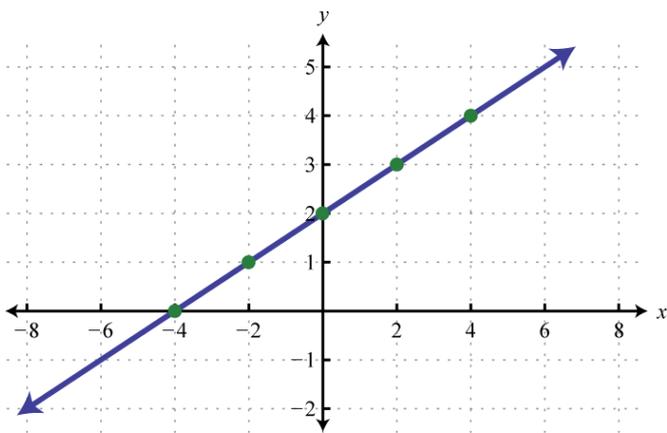
Parent/Guardian Name (printed): _____

Printed Parent/Guardian Signature: _____

Date: _____

1. For each graph below state the x-intercept and y-intercept.

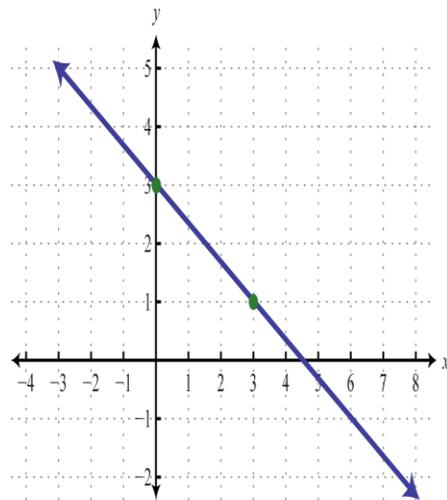
A)



x-intercept:

y-intercept:

B)



x-intercept:

y-intercept:

In 2-5 evaluate the expression.

2.) 1096^0

3.) $(-5)^2$

4.) $7^2 + 2^0$

5.) $4^3 \div 2^3$

In 6-9 solve the equation.

6.) $2x + 1 = x$

7.) $5x - 7 = 2x$

8.) $4(x - 3) = x$

9.) $6(x - 5) = 4(2x - 1)$

In 10 and 11 rewrite from standard form $Ax + By = C$ to slope intercept form $y = mx + b$.

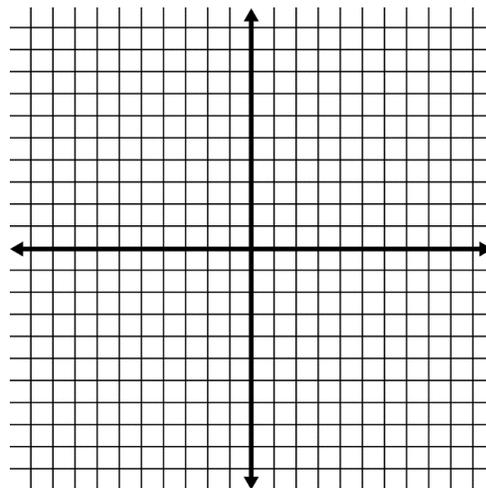
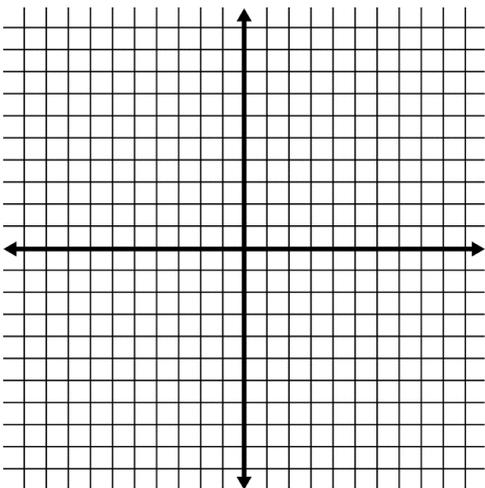
10.) $3x - 4y = 32$

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

In 12 and 13 given the equation state the slope, y-intercept, and graph the function on the coordinate plane provided.

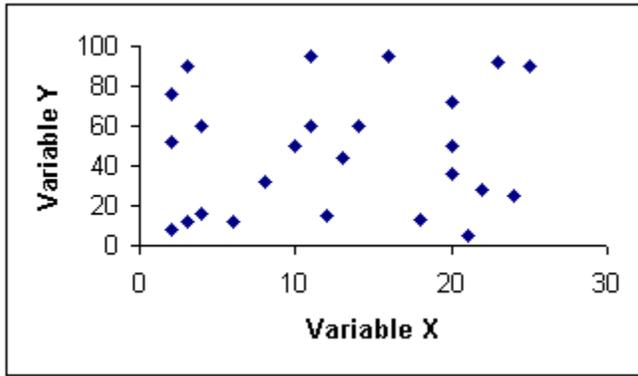
12.) $y = \frac{-2}{3}x + 5$

13.) $y = 4x - 7$

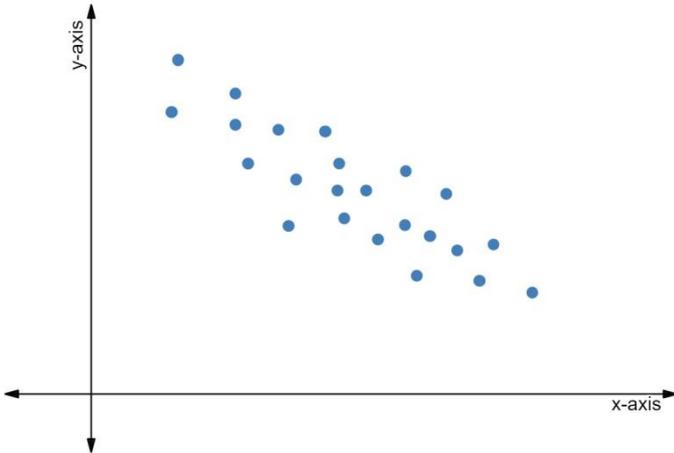


14.) if the graph shown has a positive correlation, negative correlation, or no correlation.

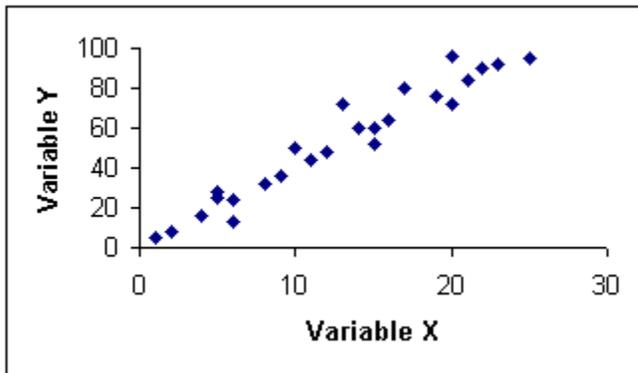
A)



B)



C)



15.) Simplifying Square Roots

Example: $\sqrt{96} = \sqrt{16}\sqrt{6} = 4\sqrt{6}$

a) $\sqrt{216}$

b) $\sqrt{98}$

c) $\sqrt{18}$

d) $\sqrt{72}$

e) $\sqrt{144}$