CP - Algebra 1 Name:_____

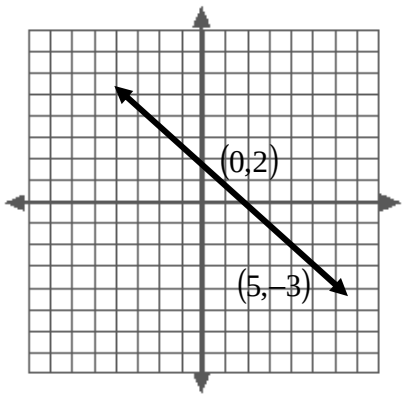
Chapter 5 Student Targets Teacher:_____Pd:_____Date:_____

Detailed Targets:

5 I can use previous skills learned as they apply to Chapter 5 topics.

5.1A I can write the equation of a line in slope-intercept form given the slope and y-intercept.
Ex 1a: Write the equation of a line with m= $\frac{1}{2}$ and a y-intercept of 8

5.1B I can write the equation of a line in slope-intercept form given a point and a y-intercept or a graph.
Ex 1b: Write the equation of the line shown.



5.1C I can write the equation of a line as a linear function.
Ex 1c: Write an equation for the linear function f with values f (0) = 6 and f(7) =22

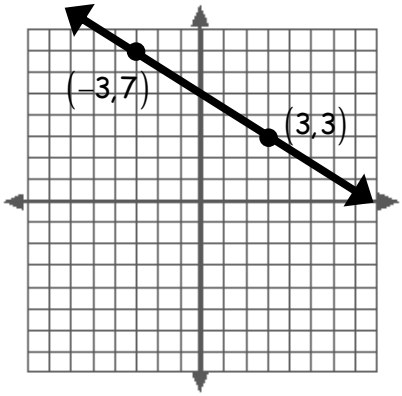
5.1D I can use the concepts as presented in word problems.
Ex 1d: A certain landscape company charges a flat rate of $30 to deliver mulch. The mulch costs $23 per cubic yard. Write an equation that gives the total cost (in dollars) of having mulch delivered to your house as function of the number of cubic yards.

5.2A I can write the equation of a line in slope-intercept form given a point and the slope.

Ex 2a: Write an equation of the line in slope-intercept form that passes through the point (-2, 4) and has a slope of 3.

5.2B I can write the equation of a line in slope-intercept form given two points or a graph.

Ex 2b: Write the equation of the line shown.



5.2C I can write the equation of a line as a linear function.

Ex 2c: Write an equation for the linear function f with values f (3) = 6 and f(7) =22

5.2D I can use the concepts as presented in word problems.

Ex 2b: You are taking karate lessons that cost $15 a month. In addition, you need to purchase a uniform for your classes. If you paid a total of $108 after 6 months (for classes and a uniform), write the equation that gives the total cost (in dollars) as a function of the length of time you have been taking classes (in months).

5.3A I can write the equation of a line in POINT-SLOPE form given a point and the slope.

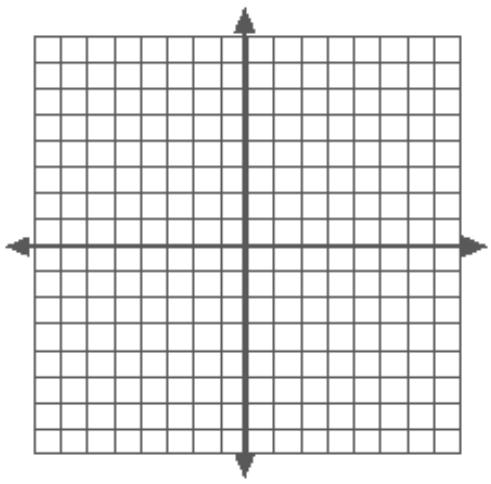
Ex 3a: Write the equation of a line in point-slope form that passes through the point (5, -2) and has a slope of -2.

5.3B I can write the equation of a line in SLOPE-INTERCEPT form by first using point-slope form, given a point and a slope.

Ex 3b: Write the equation of a line in SLOPE-INTERCEPT form by first using point-slope form that passes through the point $(-6,-3)$ *and has a slope of* $-\frac{3}{4}$

5.3C I can graph the solutions to an equation given point-slope form.

Ex 3c: Graph the equation $y-1=\frac{5}{4}(x+4)$



5.3D I can write the equation of a line in point-slope form given two points or a graph.

Ex 3d: Write an equation in point-slope form of the line that passes through both the points (-2, -3) and (4, -1)

5.3E I can use the concepts as presented in word problems.

Ex 3e: The table below shows the cost of mailing different weighted letters to Canada in 2005. Write an equation that gives the cost (in dollars) as a function of the weight of a letter (in ounces).

Weight (oz)	2	3	4	8
Cost	.85	1.10	1.35	2.35

5.4A I can write the equation of a line in standard form given a point and the slope.

Ex 4a: Write the equation of a line in standard form through (-2, 2) with a slope of $\frac{1}{2}$.

5.4B I can write the equation of a line in standard form given two points or a graph.

Ex 4b: Write an equation in standard form of a line that passes through both the points (1, 5) and (-2, -1)

5.4C I can write the equation of a horizontal or vertical line through a given point.

Ex 4c: Write the equation of a vertical line through the point $(-6,2)$.

5.4D I can use the concepts as presented in word problems.

*Ex 4d: Your cell phone plan charges you $.02 to send a text message and $.07 to receive a text message (your parents haven't let you have unlimited yet). You plan to spend **no more** that $5 a month on text messages. Write an equation in standard form that models the possible combinations of sent text messages and received text messages.*

5.5A I can write the equation of a line parallel to a given line that passes through a given point.

Ex 5a: Write the equation of a line through (3, -3) that is parallel to the line y = -2x + 1

5.5B I can write the equation of a line perpendicular to a given line that passes through a given point.

Ex 5b: Write the equation of a line through (1, -7) that is perpendicular to $y = \frac{1}{3}x - 12$

5.5C I can determine if lines are parallel or perpendicular given their equations.

Ex 5c: Determine whether the pair of lines below are parallel, perpendicular or neither:

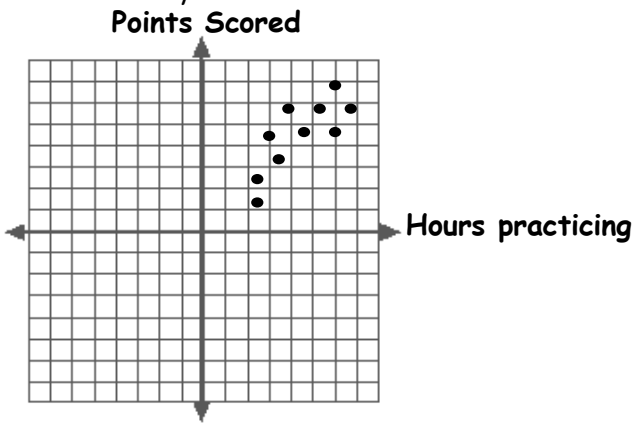
Y = 2x – 5 3x + 6y = 10

5.5D I can use the concepts as presented in word problems.

Ex 5d: You and your friends want to join a bowling league. If you pay the entire season up front, the entry fee is only $20. Otherwise, the entry fee is $32. The weekly cost of bowling is $7. a) Write an equation that gives the total cost of bowling as a function of the number of weeks you bowl if you pay the entry fee up-front. b) Write an equation that gives the total cost of bowling as a function of the number of weeks you bowl if you pay as you go. c) What do you notice about the slopes of these functions.

5.6A I can describe the correlation and interpret data in a scatter plot.

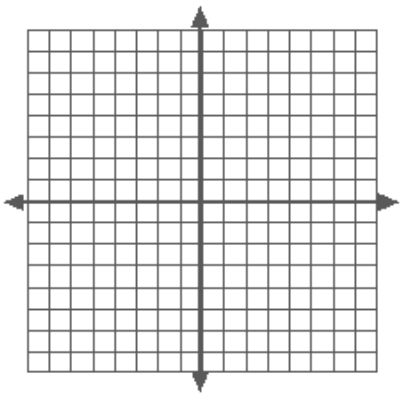
Ex 6a: Describe the correlation of the data in the scatter plot:



5.6B I can make a scatter plot.

Ex 6b: Use the table provided to make a scatter plot of the data:

X	1	1	2	3	3	4	4	5
y	20	18	17	17	14	13	13	9



5.6C I can write an equation to model data.

Ex 6c: Write an equation that models the number of injured birds rehabilitated at a local veterinary clinic as function of the number of years since 2000.

Year	2001	2002	2003	2004	2005	2006
Birds	15	19	21	25	27	30

5.6D I can use the concepts as presented in word problems.

Ex 6d: The table shows the amount of energy (Calories) and the amount of carbohydrates in a 100-gram serving of different fruits. Make a scatter plot and determine whether an avocado (161 calories and 7.39 carbohydrates) fits the trend.

Fruit	Apple	Banana	Blueberries	Kiwi	Pear	Strawberries
Energy	59	92	56	61	59	30
Carbs	15.25	23.43	14.13	14.88	15.11	7.02

5.7A I can make predictions using best-fitting lines.

Ex 7a: The table below shows the number of adults in the US that are considered overweight by a recent National Health and Nutrition Survey. Predict the year in which 75% (three-fourths) of Americans are considered overweight.

Year	1980	1990	2000	2005
Overweight	47%	56%	60%	65%

5.7B I can interpolate and extrapolate approximations using an equation.

Ex 7b: The table below shows the number of DVDs sold (in millions) by Best Buy over the past 10 years. Approximate the number of DVDs sold in 2001. Then predict the number of DVDs that will be sold in 2008.

Year	2000	2002	2004	2006
DVDs (in millions)	9.1	10.4	12.5	15.5

5.7C I can find the zero of a function.

Ex 7c: Find the zero of the function y = 2.5x - 10

5.7D I can use the concepts as presented in word problems.

Ex 7d: The table below shows the monthly profit of a small company. a) Make a scatter plot of the data. b) Find an equation that models the profit in dollars as a function of the number of months since January. c) Then approximate the profit in August.

Month	Jan	Feb	Mar	Apr	May
Profit (dollars)	1200	1250	1400	1380	1450