

Process Standards Rubric

Algebra

Expectations Instructional programs from pre-kindergarten through grade 12 should enable all students to:	GOAL 1: Problem Solving	GOAL 2: Reasoning & Proof	GOAL 3: Communication	GOAL 4: Connections	GOAL 5: Representation	Exercise																						
						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15								
<ul style="list-style-type: none"> build new mathematical knowledge through problem solving; solve problems that arise in mathematics and in other contexts; apply and adapt a variety of appropriate strategies to solve problems; monitor and reflect on the process of mathematical problem solving. 	<ul style="list-style-type: none"> recognize reasoning and proof as fundamental aspects of mathematics; make and investigate mathematical conjectures; develop and evaluate mathematical arguments and proofs; select and use various types of reasoning and methods of proof. 	<ul style="list-style-type: none"> organize and consolidate their mathematical thinking through communication; communicate their mathematical thinking coherently and clearly to peers, teachers, and others; analyze and evaluate the mathematical thinking and strategies of others; use the language of mathematics to express mathematical ideas precisely. 	<ul style="list-style-type: none"> recognize and use connections among mathematical ideas; understand how mathematical ideas interconnect and build on one another to produce a coherent whole; recognize and apply mathematics in contexts outside of mathematics. 	<ul style="list-style-type: none"> create and use representations to organize, record, and communicate mathematical ideas; select, apply, and translate among mathematical representations to solve problems; use representations to model and interpret physical, social, and mathematical phenomena. 	Drill Sheet 1	Drill Sheet 2	Review A	Review B	Review C	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15				
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SAMPLE



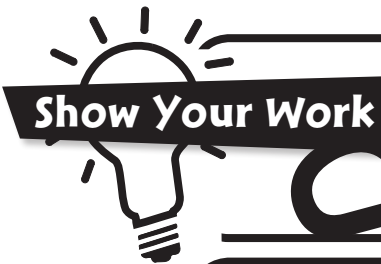
Task Sheet 13

13a) Gordie decides to rent a motor scooter for a trip into the mountains. He compares the rates of four rental companies before deciding. These rates are represented below with **C** as the total cost, and **d** as the number of days. Determine the rates of the four companies below, then record the answer in Gordie's chart. Gordie will be renting the scooter for 7 days.



Company	Equation	Result
i) Jim's Scooters	$C = 18d + 95$	
ii) Rolling Thunder Rentals	$C = 20d + 75$	
iii) A-1 Scooters	$C = 35d$	
iv) Papa John's Bikes	$C = 10d + 150$	

SAMPLE



Jim's Scooters

Rolling Thunder Rentals

A-1 Scooters

Papa John's Bikes



Review C

- a) A membership at the local fitness center costs \$75 per month, plus \$10 for each session with a personal trainer. Write an expression to determine the cost of going to the fitness center for x number of sessions per month.

- b) You spent \$215 at the fitness center in February. How many sessions did you have with the personal trainer? (Use the expression you developed in a).



Show Your Work

Answer: _____

- c) In the following pattern, each term increases by the same amount.

7, 19, 31, 43 . . .

What is the 10th term in this pattern? Answer: _____

- d) Solve these equations showing your work:

i) $4x + 7x - 8 = 14$

ii) If $x = 3$, determine the value of y
 $x^2 + 7x + 3y = 0$

- e) Simplify these equations:

i) $4x^2 + 7 - 9x - x^2 - 5 + 3x$

ii) $y^2 - 2 + 3x + 4y^2 + 8 - x$

Equations and Plotting



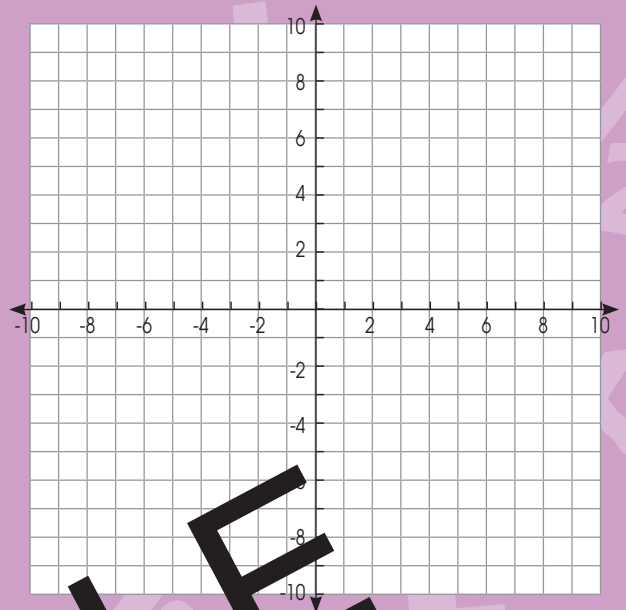
a) Plot the following coordinates on the accompanying chart:

A =

B =

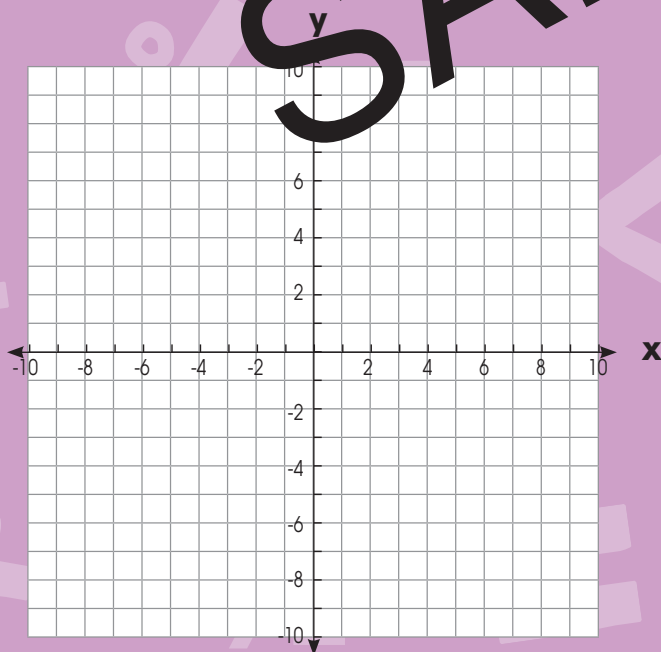
C =

D =



b) Complete the chart below using the equation $y = 2x + 4$.

x	-4	-3	-2	-1	0	1	2
y							



c) Now, plot the coordinates from the chart above on the graph below, then draw a straight line through the coordinates.