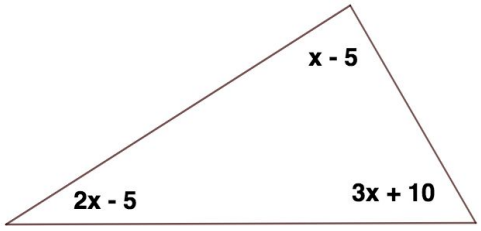
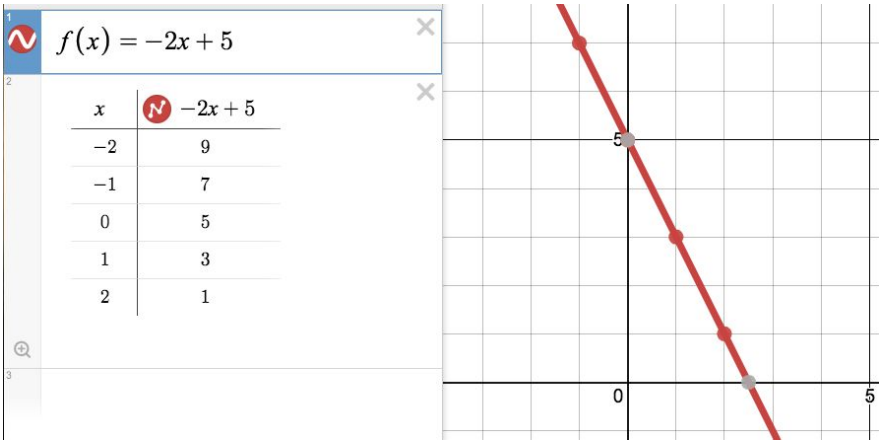
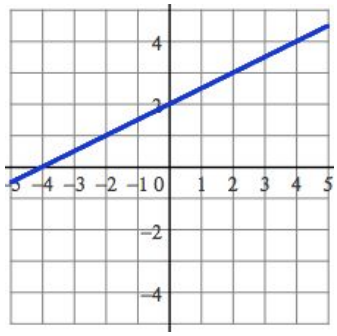
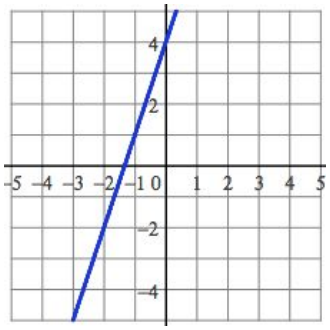
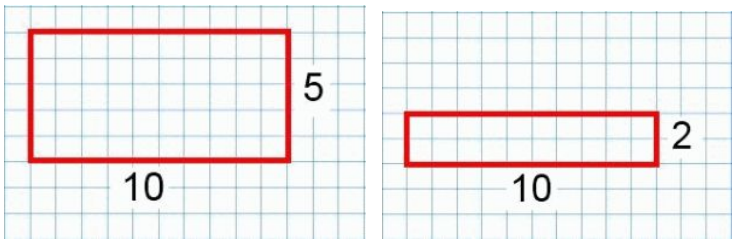
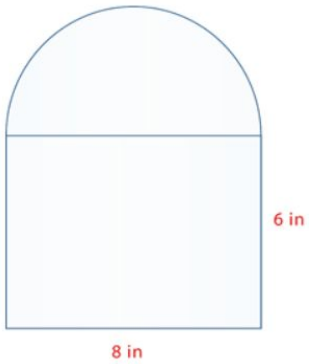
IM1 Problem Set 8 - More work with slope - Daily Tasks		
Task 1	**Task 2**	**DC**
Put solutions to problems from the previous Problem Set on the board	Discuss all problems and come to a consensus. Record solutions in your notebooks and present solutions.	DC

Problem Set 8	
8.1	Simplify the following algebraic expressions: a. $(3a^3)^2(3^3a^5)^3$ b. $\frac{(m^3)^3(2m^2)^4}{(3m)^2}$
8.2	Evaluate a. $4x^2 + 5$ for $x = -3$ b. $5 - 2x^{-1}$ for $x = 2$ c. $2 - 5(x + y)^2$ for $x = \frac{2}{5}$ and $y = \frac{1}{4}$
8.3	Solve for x: a. $\frac{5}{6}x - \frac{3}{4} = \frac{1}{4} - \frac{1}{5}x$  b.
8.4	Consider the function $f(x) = -2x + 5$  a. Looking at the graph, is the line going "uphill" or "downhill"? b. Choose two of the points in your table and calculate the *slope* of the line. Make the same calculation for several other pairs of points. What do you notice? c. What is special about the point with 0 as its x-coordinate? d. What do the –2 and the 5 represent in the original equation?

8.5	The cost of a banquet is $450 for the room plus $15 for every person served. a. Create a table of values for 0,10,20,30,40,50 people served. b. Prepare a scatter-plot to represent the relation between the number of people and the cost and draw in the line of best fit. c. What is the slope of this line and what does it represent? d. What is the y-intercept of this line and what does it represent? e. Mr S has $846. Can he pay for 27 guests? Show the reasoning for your answer.
8.6	Given the graphs of the following lines, determine their (i) slope and then (ii) their equation a.  b. 
8.7	Charlie has been drawing rectangles:  (a) Find the area and perimeter of each rectangle. (b) Charlie wondered if he could find a rectangle, with a side of length 10 units, whose perimeter and area have the same numerical value.
8.8	Find the area and perimeter of the following shape.