IM1 Problem Set 2 - 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 2	
2.1	Emerson buys a pair of jeans that cost \$35. Sales tax is 7%. Any of the following methods could be used to calculate the total cost of the jeans: • multiply \$35 by 0.07, and add \$35 to the result • multiply \$35 by 1.07 • use the formula *total* = *original* (1 + *tax rate*) Explain why all of these methods yield the same result. *Note*: just making the calculations is not enough of an explanation.
2.2	Order the following from least to greatest. You should not need a calculator for this exercise. $\left(\frac{2}{3}\right)\left(-\frac{5}{4}\right)$, $\frac{2}{3}+\frac{-5}{4}$, $\frac{2}{3}-\frac{-5}{4}$, $\frac{2}{3}\div\frac{-5}{4}$
2.3	Here is the list of ingredients for a recipe to make chocolate chip cookies: ½ cup butter ¾ cup packed dark brown sugar ¾ cup sugar 2 large eggs 1 teaspoon pure vanilla extract 1, 12-oz bag semi-sweet chocolate chips 2 ¼ cups all-purpose flour ¾ teaspoon baking soda 1 teaspoon fine salt This recipe makes 30 cookies. Adjust the recipe so it makes 100 cookies. Then adjust the recipe so it makes 20 cookies.
2.4	Solve each of the following for x. Describe each step as if you were explaining to another student how to solve the equation. a. $4x + 3 = 28$ b. $4(x + 3) = 28$
2.5	You have \$420, which is ¾ as much as Hayden has. a. Determine how much money Hayden has. b. Explain why the equation $\frac{3}{4}x = 420$ could be used to solve part (a). c. Relate these to the graph of $y = \frac{3x}{4} - 420$.

2.6	Using this data set from PS 01, make a box-and-whisker plot of the data. Be sure to clearly label minimum, first quartile, median, third quartile, and maximum. 25, 23, 27, 27, 30, 31, 30, 24, 26, 24, 29, 28, 58, 24, 27, 30, 27, 28, 25, 27
2.7	Given the following expressions, determine which of the following is (i) the greatest if $x = -4$ and (ii) which is the least if $x = \frac{5}{2}$. $\frac{4}{x},\ 2-x,\ x+5,-2(x+5)$
2.8	Disney World opened on October 1, 1971. How many days before your birthday this year was that?
2.9	You are given 36 equally sized cubes. Arrange them in any three dimensional way you wish and record the details of the arrangement you used. Determine the volume of the 3D solid you made by these 36 cubes as well as the surface area of the arrangement you created.
Challenge	How long would it take you to count to one billion, reciting the numbers one after another? First, write a guess into your notebook, then come up with a thoughtful answer. One approach is to actually do it and have someone time you, but there are more manageable alternatives. What assumptions did you make in your calculations?