IM1 Problem Set 3 - 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 3	
3.1	In 1971, approximately 2,000,000, guests visited Disney World. Last year, attendance was approximately 20,400,000 guests. a. Determine the percent increase of the attendance at Disney World from 1971 to 2016. b. Is it possible for there to be a 110% increase in the attendance? Explain your reasoning.
3.2	Choose two numbers, a and b. Make sure the numbers are not the same and that neither number is 0. Which of the following are true? For the ones that are not true, is there a pattern that describes what happens in each case? (i) $a+b=b+a$ (ii) $\frac{a}{b}=\frac{b}{a}$ (iii) $a-b=b-a$ (iv) $ab=ba$
3.3	You have \$420, which is \$130 less than Jordan. a. Determine how much money Jordan has. b. Explain why the equation $x-130=420$ could be used to solve part (a). c. Relate this to the graph of $y=(x-130)-420$.
3.4	Draw a number line and determine each of the following: a. the points that are $\frac{2}{3}$ away from $\frac{7}{3}$ b. the points that are $\frac{8}{5}$ away from $-\frac{24}{5}$ c. the points that are $\frac{17}{4}$ away from $-\frac{3}{4}$ d. the points that are $\frac{15}{2}$ away from $\frac{3}{2}$
3.5	Kelly telephoned Brooke about a homework problem. Kelly said, "Four plus three times two is 14, isn't it?" Brooke replied, "No, it's 10." Did someone make a mistake? Can you explain where these two answers came from?
3.6	You have perhaps heard the saying, "A journey of 1000 miles begins with a single step." How many steps would you take to finish a journey of 1000 miles? What information do you need in order to answer this question? Find a reasonable answer. What would your answer be if the journey were 1000 kilometers?

3.7	Determine the equation of a linear function that passes through the points A(3,2) and B(7,-6). Write the equation in all the forms you remember from Gr 8. Finally, is the point (19,-28) on the line? Show/explain how you know.
3.8	Pick any number. Add 4 to it and then double your answer. Now subtract 6 from that result and divide your new answer by 2. Write down your answer. Repeat these steps with another number. Continue with a few more numbers, each time comparing your final answer with your original number. Is there a pattern to your answers?
3.9	Your class sponsors a benefit concert and prices the tickets at $8 each. Jordan sells 12 tickets, Andy sells 16, Morgan sells 17 and Pat sells 13. Compute the total revenue from the sales of these 4 people using **two (2)** different methods.
Contest Corner	**The CENTRE for EDUCATION in MATHEMATICS and COMPUTING** *cemc.uwaterloo.ca* **1. Which of the following numbers is equal to 33 million?** (A) 3 300 000 (B) 330 000 (C) 33 000 (D) 33 000 000 (E) 330 000 000 **2. If $x = -3$, which of the following expressions has the smallest value?** (A) $x^2 - 3$ (B) $(x-3)^2$ (C) x^2 (D) $(x+3)^2$ (E) $x^2 + 3$ **3. In square $PQRS$, M is the midpoint of PS and N is the midpoint of SR. If the area of $\triangle SMN$ is 18, then the area of $\triangle QMN$ is** (A) 36 (B) 72 (C) 90 (D) 48 (E) 54