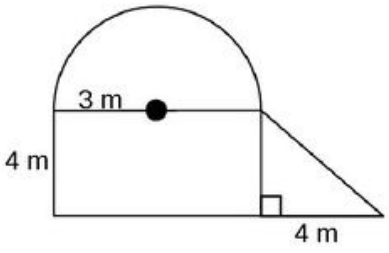
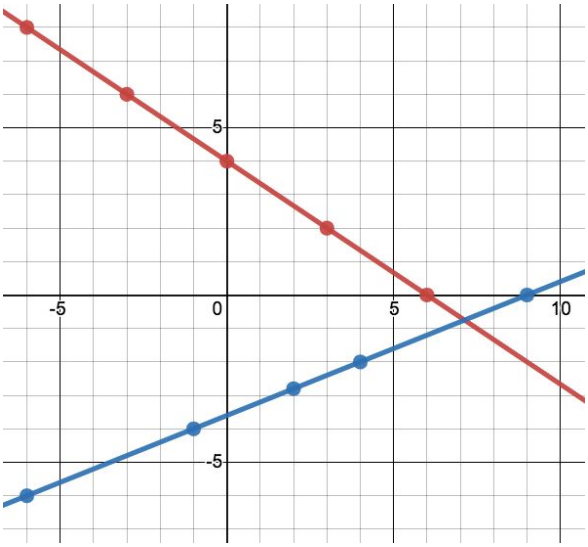
IM1 Problem Set 14 - Daily Tasks		
Task 1	**Task 2**	**DC**
Put solutions to problems from the previous Problem Set on the board	Discuss all problems and come to a consensus. Record solutions in your notebooks and present solutions.	DC

Problem Set 14	
14.1	Solve the following equations: a. $\frac{2x+3}{2} = 5$ b. $\frac{3x}{2} - 1 = 8 + x$ c. $\frac{x}{3} + \frac{2}{4} = x - 1$
14.2	Evaluate the following expressions: a. $-\frac{3}{8} + 1\frac{3}{4} + \left(-\frac{5}{12}\right)\left(\frac{-8}{15}\right)$ b. $2^2 + 2^1 + 2^0 + (2^{-1} \times 2^{-2})$ c. $\left(\frac{15}{16}\right) \div \left(-1\frac{1}{24}\right)$
14.3	My house in Canada was worth \$250,000 in 2002 and was worth \$355,000 in 2010. Let's assume that the value of my house has increased by a constant rate each year. a. What is the value of my house in 2018? In 1998? b. Write an equation that models the value of my house compared to the number of years since 2000. c. Predict in what year the value of my house first exceeds \$450,000. d. What does the slope of the line mean in the context of this problem?
14.4	A car is traveling at a constant speed. It leaves Marsa Alam at 12:00 noon. After 3 hours, they are 350 km from home and after 5 hours, they are 130 km from their home. a. Write a linear equation to represent this distance-time relationship. b. What do the slope and the *y*-intercept mean in this context? c. At what time do they get home?
14.5	Determine the area and perimeter of these composite shapes. 

14.6

Here is a graph showing 2 lines. Determine the equation of each line and write your final answers in slope-intercept form as well as standard form.



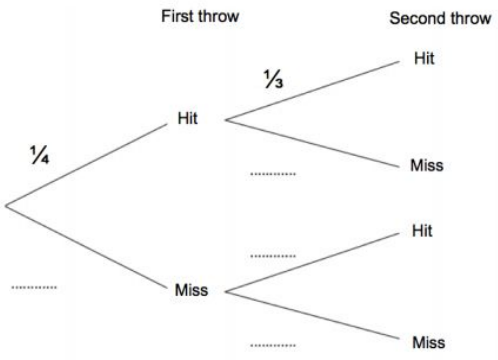
14.7

Memphis and Rocco collected the following data from a science experiment.

Temperature ℃	3	15	20	25	32	34
Volume (mL)	3.84	4.01	4.08	4.18	4.33	4.40

a. Graph the data. Put the temperature (in ℃) on the *x*-axis and the volume on the *y*-axis.
b. Draw the line of best fit - the line that best represents the trend of your data.
c. Determine the equation of your line of best fit.
d. What does the *y*-intercept represent?
e. Determine the *x*-intercept. What does it represent?

14.8

Jennifer is playing darts. She throws two darts aiming for a Bullseye. The probability Jennifer hits the Bullseye on her first throw is ¼. The probability she hits the Bullseye on her second throw ⅓.

a. Complete the tree diagram.
b. Work out the probability Jennifer hits the Bullseye at least once.