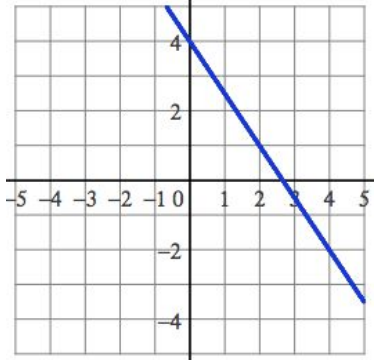
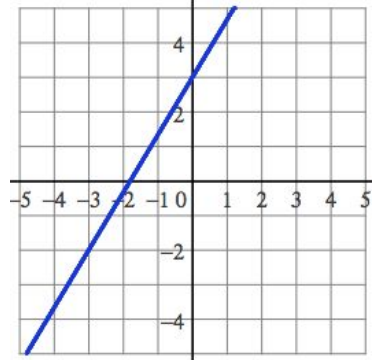


IM1 Problem Set 7 - Working with Slope - Daily Tasks

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 7

7.1 (CI)	<p>Evaluate the following numerical expressions and then decide which expression has the greatest value.</p> <p>a. $7^2 + -6 + 2 \times 4$ b. $(7^2 + -6 + 2) \times 4$ c. $7^2 + -6 + (2 \times 4)$</p>
7.2	<p>A recipe calls for $1 \frac{1}{2}$ cups of chopped dates, $\frac{3}{4}$ cup of water, $1 \frac{2}{3}$ cups of sugar, $\frac{1}{2}$ cup of chopped nuts, $\frac{2}{3}$ cup of butter, and 3 cups of flour.</p> <p>a. When all these ingredients are combined, how many cups of this recipe will their be?</p> <p>b. Mr. S wishes to make this recipe for his IM1 class, but needs to triple the recipe. How many cups of each ingredient does he require?</p>
7.3 (CI)	<p>a. x^5 means $x \cdot x \cdot x \cdot x \cdot x$. What does x^7 mean? How about $(3x)^4$?</p> <p>b. How would you simplify $(x^4)(x^6)$</p> <p>c. How would you simplify $\frac{x^7}{x^4}$</p>
7.4	<p>Given the following pairs of points, (i) $(-2,5)$ & $(-5,-1)$ and (ii) $(3,-2)$ & $(-3,10)$. Then determine:</p> <p>a. the slope of the line segment through the points</p> <p>b. the length of the line segment</p> <p>c. the midpoint of the line segment</p>
7.5	<p>Given the graphs of the following lines, determine their (i) slope and then (ii) their equation</p> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;"> <p>a.</p>  </div> <div style="text-align: center;"> <p>b.</p>  </div> </div>

7.6	<p>Graph the following lines on your TI-84 (i) $3x - y = 9$ and (ii) $3x + 9y - 18 = 0$ and then:</p> <ol style="list-style-type: none"> rearrange the equation of the line into slope-intercept form determine the slope of the line the x- and y-intercepts sketch the line into your notes.
7.7	<p>A bag contains 5 blue marbles and 2 red marbles.</p> <ol style="list-style-type: none"> One marble is drawn at random. How probable is it that the marble is blue? You will now select two marbles. You take out the first marble, record its colour and put it back into the bag. You then take out the second marble and record its colour and put it back into the bag. <ol style="list-style-type: none"> How probable is it that both your marbles were blue? How probable is it that both your marbles were the same colour? How probable is it that you selected one blue and one red marble? Suppose you made one change in this marble selection game in that you did NOT replace the first marble after you had selected the marble. How probable is it that you selected two blue marbles?
7.8	<p>Small Town Ice Cream Shoppe carries five kinds of ice cream: vanilla, chocolate, strawberry, lemon custard, and caramel swirl. They also have three types of toppings: sprinkles, chopped nuts, and hot fudge. A “Shoppe Supreme” consists of three scoops of ice cream, not necessarily distinct flavors, and three scoops of toppings, also not necessarily distinct. The ice cream is always scooped before the toppings are added, in how many distinct ways can a Shoppe Supreme be assembled at Small Town Ice Cream Shoppe?</p>
Contest Corner	<ol style="list-style-type: none"> The value of $\frac{2}{5} + \frac{1}{3}$ is (A) $\frac{3}{8}$ (B) $\frac{2}{15}$ (C) $\frac{11}{15}$ (D) $\frac{13}{15}$ (E) $\frac{3}{15}$ In the diagram, $\triangle ABC$ is right-angled at C. Also, points M, N and P are the midpoints of sides BC, AC and AB, respectively. If the area of $\triangle APN$ is 2 cm^2, then the area of $\triangle ABC$ is (A) 8 cm^2 (B) 16 cm^2 (C) 6 cm^2 (D) 4 cm^2 (E) 12 cm^2 