

## IM1 Assessment 1 - Review

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

## Assessment 1 - Concepts and Past Questions

<b>R1</b>	Working with fractions $\Rightarrow$ 0.4, 1.3, 2.2, 3.4, 4.6, $\Rightarrow$ SOURCE: N9, Chap 1R, p66, Q1,4,17
<b>R2</b>	Equations of lines $\Rightarrow$ 0.3, 3.7, $\Rightarrow$ SOURCE: N9, Chap 5R, p309, Q1,4,7,10
<b>R3</b>	Solving linear equations $\Rightarrow$ 0.7, 2.4, 4.1, 4.5 $\Rightarrow$ SOURCE: N9, Chap 4R, p250, Q2,7
<b>R4</b>	Conversion of units $\Rightarrow$ 1.6, 2.8, 3.6, 5.1,
<b>R5</b>	Operations $\Rightarrow$ 0.2, 4.3 $\Rightarrow$ SOURCE: N9, Chap 1R, p66, Q9,19,20,21
<b>R7</b>	Substitution into equations $\Rightarrow$ 2.7, 4.8 $\Rightarrow$ SOURCE: N9, Chap 1R, p66, Q10,24,25
<b>R8</b>	Graphing on the calculator $\Rightarrow$ Lab 1, 5.8, 5.9 $\Rightarrow$ SOURCE: N9, Chap 4R, p250, Q3 ; Chap 5R, p309, Q4,12
<b>R9</b>	Working with linear equations $\Rightarrow$ 1.7, 2.1, 2.4, 3.3, 5.2, 5.3 $\Rightarrow$ SOURCE: N9, Chap 4R, p250, Q4,6,13,16,17

## Assessment 1 - Concepts and Review Qs from Nelson 9 Textbook

<b>R1</b>	<p>Working with fractions</p> <p>1. Calculate without</p> <p>a) <math>1\frac{2}{3} + 9\frac{1}{2}</math></p> <p>b) <math>8\frac{1}{6} - 7\frac{2}{3}</math></p> <p>4. Calculate without using a calculator.</p> <p>a) <math>1\frac{3}{4} \times 3\frac{1}{2}</math>      c) <math>1\frac{2}{3} \div 4\frac{5}{6}</math></p>
<b>R4</b>	Conversion of units $\Rightarrow$
<b>R3</b>	Solving linear equations

	<p><b>2. Solve each equation using algebra.</b></p> <p>a) <math>3x + 6 = 12</math>  b) <math>5 - 2x = 11</math>  c) <math>4x - 8 = 12</math>  d) <math>-6x + 8 = -10</math></p> <p><b>7. Solve and verify each equation.</b></p> <p>a) <math>9x + 2 = 11x - 10</math>  b) <math>-\frac{4}{5}x + \frac{2}{3} = 1\frac{3}{4}x + 2</math>  c) <math>-3(x + 1) - 2 = 4x - 5(x - 3)</math>  d) <math>\frac{(4 + x)}{3} + 4 = \frac{(x - 6)}{2} - 6</math></p>
<b>R5</b>	<p>Operations</p> <p><b>9. Evaluate.</b></p> <p>a) <math>(-8 + 2)^2 \div (-4 + 2)^2</math>  b) <math>\frac{(-16 + 4) \div 2}{8 \div (-8) + 4}</math>  c) <math>16 - [3(6 - 3) - 12]</math>  d) <math>\frac{20 + (-12) \div (-3)}{(-4 - 12) \div (-2)}</math></p> <p><b>20. Calculate.</b></p> <p>a) <math>\frac{2}{5} \div \left(\frac{-2}{5} + \frac{1}{10}\right)</math>  b) <math>\frac{-5}{6} + \frac{-2}{3} \times \frac{3}{4}</math>  c) <math>\left[\frac{1}{8} + \left(\frac{-2}{3}\right)\right] \times \frac{12}{13}</math>  d) <math>-1\frac{1}{2} + \frac{-1}{-2} - \frac{-3}{5}</math></p>
<b>R2</b>	<p>Equations of lines</p> <p><b>11. Determine the equations of the lines described below.</b></p> <p>a) passing through the point <math>M(6, 9)</math> with slope <math>= -\frac{3}{4}</math>  b) passing through the points <math>P(3, -11)</math> and <math>Q(0, 5)</math>  c) passing through the points <math>D(2, 9)</math> and <math>E(1, 13)</math></p>
<b>R7</b>	<p>Substitution into equations</p> <p><b>10. Evaluate.</b></p> <p>a) <math>x^2 - 4x</math> for <math>x = -3</math>  b) <math>yx^2 + xy</math> for <math>x = -4</math> and <math>y = 5</math>  c) <math>\frac{-x^4 - 5x}{x + (-1)^3}</math> for <math>x = -2</math></p> <p><b>25. Evaluate each expression for the given values.</b></p> <p>a) <math>4a^2b^2</math>; <math>a = \frac{-2}{3}</math>, <math>b = -\frac{1}{2}</math>  b) <math>(2ab)^2</math>; <math>a = -0.5</math>, <math>b = 1.2</math></p>
<b>R8</b>	<p>Graphing on the calculator</p> <p><b>3. Determine the <math>x</math>-intercept of each of the following.</b></p> <p>a) <math>y = -5x + 20</math>      b) <math>2x + y = 10</math></p> <p><b>4. Determine the slope and <math>y</math>-intercept for each of these lines.</b></p> <p>a) <math>3x - 4y + 9 = 0</math>      c) <math>2x + 6y = 32</math>  b) <math>5x - y = 12</math>      d) <math>8x + 2y - 4 = 0</math></p>

**R9**

Working with linear equations

4. A promoter is holding a video dance. Tickets cost \$15 per person, and he has given away 10 free tickets to radio stations.
- Create the linear relation that models the money the promoter will earn in ticket sales in terms of the number of people attending the dance.
  - Graph the linear relation.
  - Write the equation you would solve to determine the money from tickets sales if 100 people attend. Solve the equation using the graph.
  - Write the equation you would use to determine how many people attended if ticket sales were only \$600. Estimate the solution using the graph.
13. Josh has \$32.00 in loonies and toonies.
- Write a linear relation expressing the total amount of money in terms of the number of loonies and toonies.
  - Write an equation to express the number of toonies in terms of the number of loonies.
  - Use your equation to determine 4 different possible combinations of coins Josh could have.
  - Is it possible that Josh has 13 toonies and 5 loonies? Explain.
17. The Video Vault rents DVDs for \$3.00 each and has no membership fee. Videorenters rents DVDs for \$2 each but has a \$15 membership fee.
- Write an equation for each situation.
  - Graph both equations on the same set of axes. Find the point of intersection.
  - What does the point of intersection mean in this case?
  - What advice would you give to someone who is deciding which video store to use?