

Math 172 – Quiz #2

October 18, 2013

Name: _____

Instructors: Patricia Wrean & Leah Howard

Total: 40 points

1. Find the solution set of each equation and state whether the equation is conditional, inconsistent, or an identity. (12 points)

a) $(5x + 2) - 2(3 - x) = 7x - 4$

b) $0.2(50 - x) = -10(0.02x + 1)$

c) $\frac{2x-1}{5} - \frac{x-8}{6} = \frac{2}{3}$

2. Solve the following equations for y . (5 points)

a) $0 = y + 3m - 5my$

b) $\frac{1}{5m} + \frac{1}{2y} = 4$

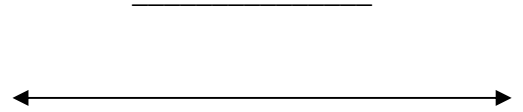
3. Solve the following absolute value equations. (4 points)

a) $|x - 5| = |4 - 2x|$

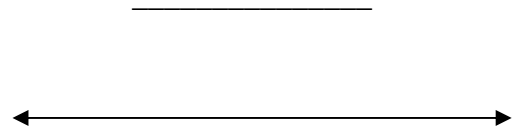
b) $4 + |4 - x| = 3$

4. Solve the following inequalities, state the solution set in interval notation, and graph it. (10 points)

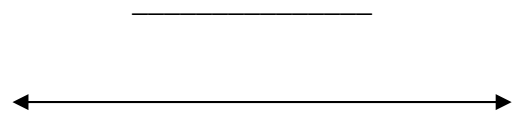
a) $\frac{3x+2}{-4} > 7$



b) $3 < 5 - 2(x-1) \leq 13$



c) $9 + 3(4-x) \geq 0$ and $4-x \leq x$



5. Two integers have a sum of 27 and the second integer is 5 less than three times the first. What are the two integers? (3 points)

6. Pat has just bought some milk that is 2% fat. She would like to add a certain amount of milk that is 10% fat in order to get a total of eight litres of milk that is 4% fat. How much of the 10% fat milk must she add? (6 points)