Unit #2 – Word Problems
Progress Check

The purpose of the progress check is to diagnose areas that you need more practice with before the test.

1. Review your notes before trying the questions in this package.

2. Answer the questions on this handout. Treat it like a test. DO NOT look at the answers until you have finished all of the questions.

3. Use the answers provided to check and see how you did.

4. Use the additional review questions provided in the textbook (see unit outline) to practice more questions like the ones you had trouble with in this package.

5. Although this progress check contains a wide selection of questions from this unit, it does not cover ALL of the possible questions from the unit.

6. Students who miss multiple tests may face a penalty of 5% per day.

K1.   During a driving test, Viola answered 80% of the questions correctly. If there were 20 questions on the test, how many did she answer correctly?

K2.   If 24 out of 60 people choose cycling as their preferred form of exercise, what percentage of people chose something else as their favourite?

A3.   Carlos works at *The Electronics Store* and earns $250 per week, plus 5% commission on all of his sales. Last week, Carlos sold $8000 worth of electronics. How much money did he earn for the week?

A4.   A bicycle that regularly costs $375 is on sale for 35% off. How much will the bicycle cost, including tax?

C5.   Write an equation for each of the following, where X represents the unknown.

a) Four times a number equals twenty.

b) Four less than one-third of a number is ten.

c) The sum of ten and three times a number is nineteen.

d) Seven time a number, minus six, results in negative eighty.

C6.   Write **two** different descriptions for each of the following equations, where x represents "a number".

	Equation	Description #1	Description #2
a)	$9x - 13 = 20$		
b)	$\dfrac{x}{6} + 8 = -3$		
c)	$5 - 2x = 6x + 8$		

A7.   The price of an apple is one ninth the cost of an apple pie.

    a) If the total cost of one apple pie and five apples is $10.50, how much does each cost?

    b) If Sandra buys 25 apples and 3 apple pies, how much will her purchase cost, including tax?

P8.   The sum of two consecutive odd numbers is 56. What are the numbers?

P9.   Carl has three times the number of stamps that Terry has. Gaston has thirty more stamps than Terry. How many stamps does each boy have if they have 2030 stamps in total?

P10.   At a movie theatre, the cost of an adult ticket is $12.50 and the cost of a child ticket is $8.00. At the 4:00 PM showing of a movie, the theatre sells 56 more child tickets than adult tickets. If they took in a total of $1001.50 in ticket sales, how many adults and how many children were there?

P11. Chandra has $36.25 in dimes and quarters. If she has 250 coins in total, how many of each coin are there?

P12. The perimeter of a rectangle is 64 m. The length is two metres longer than triple the width. What are the dimensions of the rectangle?

1] 16   *2]* 60 %   *3]* $650   *4]* $275.44   *5a]* 4x = 20   *5b]* $\frac{x}{3} - 4 = 10$ *5c]* 10 + 3x = 19   *5d]* 7x – 6 = –80

6a] *Answers will vary.*
 Thirteen less than a nine times a number is twenty.
 When a number is multiplied by nine and then thirteen is subtracted, the result is twenty.

6b] *Answers will vary.*
 A number divided by six, plus eight, equals negative three.
 Eight more than one sixth of a number is negative three.

6c] *Answers will vary.*
 Five subtract two times a number equals six times a number, plus eight.
 The difference between five and double a number is the sum of six times a number and eight.

	Let Statements	*Equation*	*Answer*
7a]	Let $\frac{x}{9}$ be the cost of an apple Let x be the cost of an apple pie	$1(x)+5\left(\frac{x}{9}\right)= 10.50$	*Apple: $0.75* *Apple Pie: $6.75*

7b] $44.07

	Let Statements	*Equation*	*Answer*
8]	*Let x be the first number* *Let x + 2 be the second number*	*x + x + 2 = 56*	*1ˢᵗ Number: 27* *2ⁿᵈ Number: 29*
9]	*Let 3x be the # of Carl's stamps* *Let x be the # of Terry's stamps* *Let x + 30 be the # of Gaston's stamps*	*3x + x + x + 30 = 2030*	*Carl: 1200 stamps* *Terry: 400 stamps* *Gaston: 430 stamps*
10]	*Let x be the # of adults* *Let x + 56 be the number of children*	*12.50(x) + 8.00(x + 56) = 1001.50*	*Adults: 27* *Children: 83*
11]	*Let 250 – x be the # of dimes* *Let x be the # of quarters*	*0.10(250 – x) + 0.25(x) = 36.25*	*Dimes: 175* *Quarters: 75*
12]	*Let 3x + 2 be the length* *Let x be the width*	*x + 3x + 2 + x + 3x + 2 = 64*	*Length: 24.5 m* *Width: 7.5 m*