Section: Level 1

- 1. Solve for the following variables showing all steps. (1 mark each, total 4 marks)
  - a) 64 = 8d

b) - 44 =  $\frac{x}{4}$ 

c)  $\frac{x}{7}$  = -16

d) 6y = -72

- 2. Multiple Choice: Circle the letter that corresponds with the best answer. (1 mark each, total 3 marks).
  - i) To solve the equation 4x 9 = 19 we would **first** have to...
    - a) Subtract 9 from both sides.
    - b) Add 9 to both sides.
    - c) Divide both sides by 4.
    - d) Multiply both sides by 4.
  - ii) To solve the equation 4 + 9x = -32 we would **first** have to...
    - a) Subtract 4 from both sides.
    - b) Add 4 to both sides.
    - c) Divide both sides by 9.
    - d) Multiply both sides by 9.
  - iii) To solve the equation  $\frac{x}{3.2}$  7.3 = 12.5, the **second** step would be to...
    - a) Add 7.3 to both sides.
    - b) Subtract 7.3 to both sides.
    - c) Multiply both sides by 3.2.
    - d) Divide both sides by 3.2.

3. Complete the following <u>checks</u> to **show** whether x = -15 is **the solution** or <u>not</u> to each equation. (1 mark each, total 4 marks)

a) 
$$6x = -105$$

b) 1 = 
$$\frac{x}{-15}$$

c) 
$$\frac{x}{-3} = -5$$

d) 
$$90 = -6x$$

4. Solve for the following variables, showing all steps.( 1 mark each, total 8 marks)

a) 
$$3x - 2 = 7$$

b) 
$$-12 = 5x + -2$$

c) 
$$4x + 1 = -3$$

d) 
$$12 = 5x + 2$$

e) 
$$23 = 5t + 3$$

f) 
$$3w + 20 = -7$$

5. Solve the following variables, showing all steps.( 2 marks each, total 6 marks)

a) - 3 = 
$$\frac{n}{7}$$
 - 7

b) - 4+ 
$$\frac{x}{11}$$
 = -1

c) 2 + 
$$\frac{x}{-8}$$
 = 4

Section: Level 2

6. Solve the following variables, showing all steps.( 2 marks each, total 8 marks)

a) 
$$3.95 - 1.3x = 12.8$$

b) 
$$-7.2 = -8.1 + 4.2 x$$

c) - 
$$3.8x - \frac{3}{4} = 9.25$$

d) 
$$\frac{1}{2}$$
 x - 1 = 11

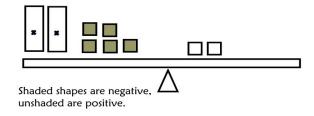
- 7. Complete the following problems and show all work.( Total 15 marks)
  - a) Alexa is 6 years older than twice Anna's age.
    - i) Write an equation to represent this situation.( 1 mark)
    - ii) If Alexa is 12, what is the age of Anna?(2 marks)
  - b) During a school fundraiser, grade 9 raised triple the amount of money that grade 8 and 7 raised together. Grade 9 brought in \$1095. Grade 8 brought in \$165.
    - i) Write an equation to represent this situation.( 1 mark)

	ii) What is the total amount of money raised by Grade 7?( 2 marks)
c)	After the poker game was finished, Bob had 4 more than 7 times the number of chips that Jim had. Bob had 67 chips when the game finished.  i) Write an equation to represent this situation. (1 mark)
	ii) How many chips did Jim have when the game was finished?( 2 marks)
d)	The Kelowna Rockets won 30 games. This is 6 less than $\frac{1}{3}$ of the number of games the Kamloops Blazers won.  i) Write an equation to represent this situation.( 1 mark)
	ii) How many games did the Kamloops Blazers win?( 2 marks)-
e)	Budget car rentals rents Ferrari's for a flat rate of \$250 plus \$95 per day.  i) Write an equation to represent this situation.( 1 mark)
	ii) If you rented the car for 11 days, how much will this cost in total?( 1 mark)

iii) If someone had to pay Budget \$2,245, how many days was the Ferrari rented?( 1 mark)



f) i) What equation do the following shapes represent?( 1 mark)



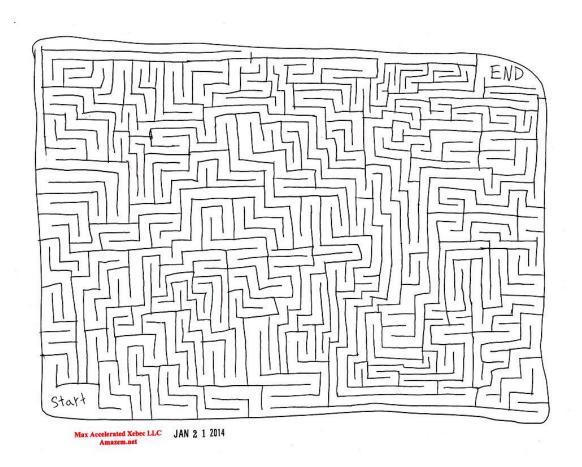
ii) Solve the equation.( 1 mark)

**End of Test:** Carefully check and make sure that you have made no errors, all work is shown and correct. If completely done, quietly read please or quietly complete incomplete work.

Bonus 1A: What is the formula for converting  $^{\circ}$  F (Fahrenheit) to  $^{\circ}$  C (Celcius)? ( 1 mark)

Bonus 2A: Solve for X (1 mark)

$$5(x-3) + 4(x+2^3) = 21$$





HORRIBLE INNER TEETH ON IT'S SEPARATELY MOVING UPPER JAW BONES ARE PULLING ME DOWN IT'S FRIGID GULLET! RUN FOR YOUR LIFE!





