**Math 9 – Unit 4: Word Problems** Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Lesson #2: Words to Equations**  Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Learning Goal:** We are learning to convert sentences into mathematical expressions and equations.

Given the following mathematical operations, write down as many words that relate to it as you can:

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**1. Convert each to an expression:**

a) the product of a number and 12 b) 7 less than x

c) the quotient of 77 and 7 d) half of 24

**2. Convert each to an equation:**

a) x decreased by 9 is 7 b) r increased by 10 is 17

c) twice v is equal to 28 d) a number squared is 8

**3. Convert each sentence to an expression with a variable. Use a “LET” statement to define the variables.**

a) There are 16 more white keys than black keys on a piano.

b) Jane is 6 years younger then her sister Melanie.

c) Michael has assists three more than twice the amount of goals.

d) Japan’s population is 3.5 times that of Canada.

e) When Erica bikes to work, it takes 15 minutes less than three times the time it takes to drive.

**Success Criteria:**

* I can identify the variable that I am trying to solve
* I can rearrange a formula by using inverse operations
* I can use the rearranged formula to answer the question