Name _____   Date _____

Mrs. Ashley   Math 6 – Period _____

Warm-up: Identify the next three (3) <u>terms</u> in each sequence. What is the <u>rule?</u>

a) 7, 10, 13, 16, <u>19</u>, <u>22</u>, <u>25</u>   Rule: <u>add three (+ 3)</u>

(+3)

b) 105, 88, 71, 54, <u>37</u>, <u>20</u>, <u>3</u>   Rule: <u>Subtract 17 (– 17)</u>

$$\begin{array}{r} 105 \\ -\ 88 \\ \hline 17 \end{array}$$

-17

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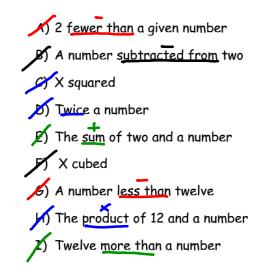
Let's Investigate:

TRANSLATING EXPRESSIONS: *Do you mean what you say?*

Write the letter choice on the line that matches the correct algebraic expression.

#	Expression	Answer
1.	2x	D
2.	x + 2	E
3.	x – 2	A
4.	2 – x	B
5.	12x	H
6.	x + 12	I
7.	12 – x	G
8.	x^3	F
9.	x^2	C

$12 \cdot x$ → (row 5)

A) 2 <u>fewer than</u> a given number

B) A number <u>subtracted from</u> two

C) X squared

D) Twice a number

E) The <u>sum</u> of two and a number (+)

F) X cubed

G) A number <u>less than</u> twelve

H) The <u>product</u> of 12 and a number (×)

I) Twelve <u>more than</u> a number

1

KEY WORDS

Place the words below in the correct column:

TWICE, TOTAL, QUOTIENT, TAKE AWAY

ADDITION (+)	SUBTRACTION (-)	MULTIPLICATION (x or ·)	DIVISION (÷)
Add	Decrease	Double (x2)	Divide
All together	Difference	Factor	Dividend
And	*Fewer than	Multiply	Divisor
Combined	How many left?	Of a number	Fraction
*Greater than	How many more?	Product	Goes Into
In All	*Less than	Quadruple (x4)	Half
Increase	Minus	Times	How many groups?
*More Than	Remaining	Triple (x3)	Per
Plus	Subtract	Twice (x2)	Percent
Sum	Take away		Quotient
Total			

SWITCH ORDER WORDS	EXPONENTS	PARENTHESIS WORDS	EQUALS
Greater than	Cubed (x³)	Quantity	Is
More than	Squared (x²)	Times the difference of	Total
Fewer than		Twice the sum of	Result
Less than		Plus the difference of	Same as
Subtracted from		Plus the sum of	Equivalent to

KEY CONCEPT 1: Writing <u>algebraic expressions</u> to represent verbal sentences.

English → math

Highlight the key words that will help you determine the correct operation.

1) A number *x* increased by three. $$X + 3$$	2) Three more than a number *x*. ✳ $$X + 3$$
3) The quotient of a number *n* and fifteen. $$\frac{n}{15} \text{ or } n \div 15$$	4) The product of a number *n* and fifteen. $$n \cdot 15 \text{ or } 15n$$
5) Three times a number *n* decreased by five $$3 \cdot n - 5$$ $$3n - 5$$	6) Five less than three times a number *n*. $$3n - 5$$

KEY CONCEPT 2: Writing <u>algebraic expressions</u> in WORDS.

Write the algebraic expressions in <u>words</u>, using key words from the <u>word-bank</u>. There is more than one way to write each expression.

7) $5d + 6$ The product of five and d, plus six.

Five times a number d, increased by six.

8) $15(a + c)$ Fifteen times the sum of a and c.

Fifteen times the quantity of a and c.

a increased by c, multiplied by fifteen.