**Lesson 3.3a Translating Equations**

E.Q. How can we use prior math vocabulary knowledge to translate equations?

**Math Vocabulary Review**

**IS** 🡪 **= TOTAL of 🡪 +**

**SUM of 🡪 + PLUS 🡪 +**

**INCREASED by 🡪 + less a number 🡪 - number**

**DIFFERENCE between 🡪 - less than a number 🡪 number –**

**a number SUBTRACTED *from* 🡪 - number**

**a number SUBTRACTED *by* 🡪 number –**

**PRODUCT of 🡪 \* QUOTIENT of 🡪 ÷ or**

**DOUBLE a number 🡪 2 \* number TRIPLE a number 🡪 3 \* number**

**TRANSLATING EQUATIONS:** Use the phrase given to write an equation, one word at a time, USING a VARIABLE for the word ‘NUMBER’.

|  |  |
| --- | --- |
| “The sum of a number and 6 is 32.”  **N + 6 = 32** | “12 increased by a number is 24.”  **12 + N = 24** |
| “The difference between a number and 8 is 11.”  **N - 8 = 11** | “Nine less than a number is five.”  **N-9 = 5** |
| “Seven is equal to a number plus 6.”  **7 = N + 6** | “The sum of a number and -4 is -18.”  **N + ( -4) = -18** |
| “The product of a number and 5 is 30.”  **5N = 30**  **or N \* 5 = 30** | “A number divided by 5 is -13.”  **N/5 = - 13**  **N ÷ 5 = - 13** |
| “The **quotient** of a number and -4 is 15.”  **N/ (-4) = 15 or**  **N ÷ (-4) = 15** | “Triple a number is thirty.”  **3N = 30** |
| “Eighteen subtracted from a number is 35.”  **N – 18 = 35** | “-4 less a number is 17.”  **-4 – N = 17** |
| “The total of a number and -15 equals -6.”  **N + (-15) = -6** | “-9 more than a number results in -20.”  **-9 + N = -20** |
| “The quotient of a number and 3 is 8.”  **N/3 = 8 or**  **N ÷ 3 = 8** | “Nine times a number is -63.”  **9N = -63** |
| “Twice a number is 26.”  **2N = 26** | “The product of a number and -8 is 72.”  **N \* (-8) = 72 or**  **-8N = 72** |

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