Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

UNIT 7 LESSON 6

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| AIM: | SWBAT write one-step equations |

**THINK ABOUT IT!**

Matthew’s teacher wrote the description on the board: The sum of a number, n, and 15 is 32.

**Part A:** Create a bar model that represents the description

**Part B:** Write an equation that represents the description

**Part C:** Explain how creating the bar model helped you write an equation.

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Key Point

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**Interaction with New Material**

*Ex. 1)* Write an equation that represents ‘5 less than some number is 20’

*Ex. 2)* Write an equation that represents ‘the quotient of 25 and a number is 10

**PARTNER PRACTICE**

* CFS for top quality work
  + Problem is annotated with margin notes to provide additional meaning
  + Bar model is drawn accurately and labeled
  + Equation is written
  + Check is performed using substitution
  + Answer is boxed

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| *Bachelor Level* |

**Directions:** Draw a model and write an equation to represent each description. Perform a check for each equation.

1. The difference of a number and 9 is 12
2. Twelve more than a number is 34
3. Five time a number is 35

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| *Master Level* |

1. Use the following description for parts A and B below

One-half of a number is 17.5

1. Write an equation to represent the description above
2. What is the value of the number in the description?

Explain how you used a model to determine the equation for part A

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* CFS for top quality work
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  + Bar model is drawn accurately and labeled
  + Equation is written
  + Check is performed using substitution
  + Answer is boxed

**INDEPENDENT PRACTICE**

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| *Bachelor Level* |

**Directions:** Draw a model and write an equation to represent each description. Perform a check for each equation.

1. The product of ½ and a number is 8
2. Seven less than a number is 18
3. Two more than some number is three and five-tenths

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| *Master Level* |

1. Which equation(s) represent the following description? Select all that apply.

One-fourth of a number is 3 ¼

1. ¼x = 3¼
2. x – ¼ = 3¼
3. x ÷ ¼ = 3¼
4. x ÷ 4 = 3¼
5. (4)(3¼) = x
6. x = 3¼ + 3¼ + 3¼ + 3¼
7. What is the difference between the equations 24 less than x is 20 and x less than 24 is 20?

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1. Is x = 4 a solution to the equation, x divided by 8 is 2? Show your work or explain how you know.

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1. Which description below does not translate to y – 4 = 12? Select all that apply
   1. The difference of y and 4 is 12
   2. Four less than y
   3. y less than four is 12
   4. Four less than y is 12
   5. y decreased by 4 is 12

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| *PhD Level* |

1. Paul bought a package of 6 spiral notebooks for a total cost of $13.50. Write and solve an equation that can be used to find the cost of each notebook.

* CFS for top quality work
  + Problem is annotated with margin notes to provide additional meaning
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  + Answer is boxed

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**EXIT TICKET**

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| Self-assessment | I mastered the learning objective today. | I am almost there. | Need more practice and feedback. |
| Teacher feedback | You mastered the learning objective today. | You are almost there. | You need more practice and feedback. |

1. Write an equation to represent the following sentence: the quotient of thirty-six and a number is two.
2. Write an equation to represent the following sentence: an amount less than ten and five-tenths is three and seven-tenths.