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

UNIT 6 LESSON 6

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| AIM: | SWBAT write expressions |

**THINK ABOUT IT!**

Matt is five years younger than his brother. His brother’s age can be represented by the variable, a. Select the expression or expressions that represent Matt’s age.

b – 5

5 – a

m + 5

a – 5

Explain how you selected the expression(s) that represent Matt’s age.

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Key Point

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**Interaction with New Material**

Ex. 1) Ms. Langlois has 25.5 pencils and Mr. Cox has a certain number of pencils. Write an expression that represents the combined number of pencils Ms. Langlois and Mr. Cox have.

Ex. 2) Olivia has a certain number of pieces of candy that she wants to share evenly with her siblings. She has 2 sisters and a brother. Write an expression that represents the amount of candy each sibling will get.

**PARTNER PRACTICE**

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| *Bachelor Level* |

1. Complete the table below. The first one has been done for you!

|  |  |  |
| --- | --- | --- |
| **Problem**  | **Define the Variable** | **Expression**  |
| *Greg has two more dollars than his brother Jeff. Write an expression for the amount of money Greg has.* | *Let j = Jeff’s money in dollars* | *j + 2* |
| Greg has two more dollars than his brother Jeff. Write an expression for the amount of money Jeff has. |  |  |
| Abby read 8 times as many books as Kristen in the first marking period. Write an expression for the number of books Abby read.  |  |  |
| In the second marking period, Kristen read 5 times as many books as Abby. Write an expression for the number of books Abby read. |  |  |

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| *Master Level* |

1. The expression 4.75*s* describes the total cost, in dollars, of ordering *s* number of sandwiches from a deli. Which of the following best describes the cost of ordering from this deli?

(a) Each sandwich costs $4.75

(b) Each sandwich costs $s

(c) *s* sandwiches cost $4.75

(d) 4.75 sandwiches cost $*s*

1. Which expression shows the number of erasers Tziah has if Tziah has twice as many erasers as Lemeul has, e?
	1. e + 2
	2. e ÷ 2
	3. 2e
	4. e - 2

Explain how you chose the expression that represents the number of erasers Tziah has.

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**INDEPENDENT PRACTICE**

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| *Bachelor Level* |

1. Complete the table below. The first one has been done for you!

|  |  |  |
| --- | --- | --- |
| **Problem**  | **Define the Variable** | **Expression**  |
| *Greg has two more dollars than his brother Jeff. Write an expression for the amount of money Greg has.* | *Let j = Jeff’s money in dollars* | *j + 2* |
| Daryl has been teaching for one year longer than Julie. Write an expression for the number of years that Daryl has been teaching.  |  |  |
| Ian scored 4 fewer goals than Julia in the first half of the season. Write an expression for the number of goals Ian scored. |  |  |
| In the second half of the season, Ian scored $\frac{1}{3}$ as many goals as Julia. Write an expression for the number of goals Ian scored.  |  |  |

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| *Master Level* |

1. The farmer’s market is selling bags of apples. Every bag of apples costs $2.25.
	1. Complete the table

|  |  |
| --- | --- |
| **Number of bags** | **Cost ($)** |
| 1 | 2.25 |
| 2 |  |
| 3 |  |
| 4 |  |

* 1. Write an expression that represents the cost of any number of bags of apples.
	2. Write an expression that represents the number of apples for any cost.

1. In New York State, there is a five cent deposit on all carbonated beverage cans and bottles. When you return the empty can or bottle, you get five cents back. Write an expression that represents the total amount of money you get for returning any number of cans and bottles.

For the problem above, Mike wrote 5r to represent the amount of money you get for returning any number of cans and bottles, where *r* represents the total number of cans and bottles returned. Is his expression correct? Why?

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Abi is having a birthday party. She has 400 party favors and she wants to give each friend who comes the same number of party favors. Which expression(s) can be used to determine the number of party favors each friend would get for any number of friends who attend the party, *f*.

400 x f

$\frac{f}{400}$

400 ÷ f

f x 400

$\frac{400}{f}$

f ÷ 400

1. Cheney has twelve more marbles than Rowan.

Part A) Write an expression that shows how many marbles Rowan has in relation in Cheney.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 What does the variable represent? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 What does the constant represent? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Part B) Write an expression that shows how many marbles Cheney has in relation to Rowan.

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 What does the variable represent? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 What does the constant represent? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| *PhD Level* |

1. A pendulum swings through a certain number of cycles in a given time. Owen made a pendulum that swings 12 times every 15 seconds.
	1. Construct a table showing the number of cycles through which a pendulum swings. Include data for up to one minute.
	2. Write an expression for the time it takes for the pendulum to make *c* cycles.
	3. Owen and his team set their pendulum in motion and counted 16 cycles. How much time passed?
	4. Write an expression for the number of cycles a pendulum swings in *s* seconds.

**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 expression that represents the number of stickers Briana has: Chelsea has a certain number of stickers. Her friend Brianna has seven fewer stickers than Chelsea.

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2. Which answer below matches the following verbal expression: “Justin had a certain number of dollars and split it equally among 7 of his friends.” Select all that apply.

1. 7 ÷ n
2. n – 7
3. $\frac{n}{7}$
4. $\frac{7}{1}$n
5. $n ÷7$

3. Tim bought a certain number of bags of chips that each cost $1.05. Write an expression to show the total cost and find the cost of 2 bags to prove that your answer makes sense.

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