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UNIT 6 LESSON 7

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| AIM: | SWBAT write expressions |

**THINK ABOUT IT!**

Javi was given the problem below.

*Crystal always has five fewer than twice as many cookies as her sister. Write an expression to represent the number of cookies Crystal has.*

1. To help him come up with the expression, Javi started to create a table to represent the number of cookies Crystal has given a certain number of cookies her sister has. Complete the table Javi started.

|  |  |
| --- | --- |
| **Sister’s cookies, *c*** | **Crystal’s cookies** |
| 10 | 15 |
| 11 |  |
| 12 |  |

1. Write an expression to represent the number of cookies Crystal has.
2. Explain how you used the table to come up with an expression.

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Key Point

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**Interaction with New Material**

Ex. 1) Pizza Queen has a special offer on lunch pizzas: the normal price. They charge $2.00 to deliver, regardless of the price of the pizza that they are delivering. Which expression(s) could be used to determine the cost of ordering one pizza at any price, *p*? Circle all that apply.

1. 2p + 2

Ex.2) Janice and her brother went to the movies. They each bought a thing of popcorn that cost $3.50, a movie ticket that cost $15.50, and a soda that cost a certain amount. Write an expression that represents the total amount of money Janice and her brother spent at the movie theater.

**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** | **Table** | **Expression** |
| *Greg has three more than twice the number of dollars than his brother Jeff. Write an expression for the amount of money Greg has.* | *Let j = Jeff’s money in dollars* | |  |  |  | | --- | --- | --- | | **Jeff’s money ($), *j*** | **Calc.** | **Greg’s money** | | 1 | 2 x 1 + 3 | 5 | | 2 | 2 x 2 + 3 | 7 | | 3 | 2 x 3 + 3 | 9 | | *2j + 3* |
| Jaiden ran a certain number of miles. Miranda ran 3 times the sum of m and 6. Write an expression for the number of miles Miranda ran. |  |  |  |
| Kathy made two pizzas for dinner. The first pizza had a certain number of pepperoni. The second pizza had eight fewer than quadruple the number of pepperoni the first pizza had. Write an expression for the number of pepperoni on the second pizza. |  |  |  |

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| *Master Level* |

1. Write a mathematical statement that can be represented by the expression 2(5 + m).

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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** | **Table** | **Expression** |
| *Greg has three more than twice the number of dollars than his brother Jeff. Write an expression for the amount of money Greg has.* | *Let j = Jeff’s money in dollars* | |  |  | | --- | --- | | **Jeff’s money ($), *j*** | **Greg’s money** | | 10 | 15 | | 11 | 17 | | 12 | 19 | | *2j + 3* |
| Movie tickets for you and some of your friends cost $7 each. You all also want to purchase one popcorn for each person, which costs $4. Write an expression to represent the total cost of tickets and popcorn for any number of people. |  |  |  |
| Lily starts a savings account with $5,000. Each month, she withdraws $10 from her account. Write an expression that can be used to determine how much money Lily has left in her savings account after a certain number of months. |  |  |  |
| Jimmy and his brother bought chocolate at the store. Jimmy bought a certain number of pieces, and his brother bought five fewer than half the number Jimmy bought. Write an expression to represent how many pieces of candy Jimmy’s brother bought. |  |  |  |
| *Master Level* | | | | | |

1. Lorenzo was asked to write an expression to represent the mathematical phrase: 4 times the sum of eight and n. He wrote the expression: 4 x 8 + n.

Does his expression correctly represent the mathematical phrase? Explain.

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1. Jeff planned to run a few miles over a certain number of weeks. He planned to run 3 miles on weeknights and 10 miles on Saturday. Which expression(s) shows how many miles Jeff planned to run over a certain number of weeks. Circle all that apply.
   1. 3 + 10
   2. w(3 + 10)
   3. 3w + 10
   4. 3w + 30
   5. 3 + 10w
   6. 3w + 3(10)
2. Krystal Clear Cell Phone Company charges $5 per month for service. The company also charges 10 cents for each text message sent. Write an expression that represents a monthly bill for any number of text messages sent.
3. Mr. Gee’s English class keeps track of how many words per minute are read aloud by each of the students. They collect this Oral Reading Fluency data each month. Below is the data they collected for one students in the first four months of school.
4. Assume this increase in Oral Reading Fluency continues throughout the rest of the school year at the same rate. Complete the table to project the reading rate for this student for the rest of the year.

|  |  |
| --- | --- |
| **Month** | **Number of Words Read Aloud in One Minute** |
| September | 126 |
| October | 131 |
| November | 136 |
| December | 141 |
| January |  |
| February |  |
| March |  |
| April |  |
| May |  |
| June |  |

1. Write an expression that represents the student’s Oral Reading Fluency, in number of words read aloud in one minute, for any number of months assuming September is month 0.

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| *PhD Level* |

1. The Italian Villa Restaurant has square tables that the servers can push together to accommodate the customers. Only one chair fits along the side of the square table. That means that four chairs fit around one table. Write an expression that represents the number of chairs that are needed to go around any number of tables that are pushed together.

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

**EXIT TICKET**

|  |  |  |  |
| --- | --- | --- | --- |
| 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. Tim bought a certain number of bags of chips that each cost $0.75 and bottle of soda that cost $1.50. Write an expression to show the total cost.

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1. Chris had a bag of *n* jelly beans. His sister Joan’s bag contained three less than half of what he had. Which expressions shows how many jelly beans are in Joan’s bag? Select all that apply.
2. (n ÷ 3) – 2 b. 3 - (n ÷ 2) c. (n ÷ 2) – 3 d. 2n – 3 e. – 3 f. - 2
3. A family of goes to a soccer game. Tickets are each. The mom also buys every person in the family candy for $n. Read each statement below and decide whether it is “True” or “False”

|  |  |  |
| --- | --- | --- |
| Statement | True | False |
| The total costs for tickets is $20 |  |  |
| The expression 20 + 4n represents the scenario |  |  |
| The expression 20 + n represents the scenario |  |  |