

## CH3, L2 – INTERPRETING EXPRESSIONS IN CONTEXT

**Big Idea:**

**Partner Practice:** (*Low Difficulty*)

1. Harry's bank account starts at \$150 at the beginning of the week. Every day of the week he adds an additional \$5 to his account. The expression  $150 + 5d$  can be used to represent this situation. Explain what each component of the expression represents:

a. 150 \_\_\_\_\_  
\_\_\_\_\_

b. 5 \_\_\_\_\_  
\_\_\_\_\_

c. d \_\_\_\_\_  
\_\_\_\_\_

2. Mark and Laurie are splitting the cost of a cab to the airport. The cab has an initial fee of \$1.50 and \$2.25 per mile. Explain what each component of the following expression represents in the context of the problem

$$\frac{2.25m + 1.50}{2}$$

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a. 2.25 \_\_\_\_\_

b. 1.50 \_\_\_\_\_

c. m \_\_\_\_\_

d. 2 \_\_\_\_\_

- e. Explain what the entire expression represents.

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

**Partner Practice:** *(Medium Difficulty)*

The table below is used by a local fair to price the cost of individual items for people that attend. Use the table to answer questions 3–6.

Adult Admission Ticket = \$10	Child Admission Ticket = \$5
Adult Ride Ticket = \$2	Child Ride Ticket = \$1
Can of Soda = \$0.75	Whole Pizza = \$8
Cotton Candy = \$3	Pizza Slice = \$1.50

3. Explain what the expression  $10x + 5y$  could represent given the context of the situation.

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4. Explain what  $x$  and  $y$  represent from the previous problem

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5. Given the expression  $y(5 + 1 + 1.50 + 3)$ , explain the meaning in context of the problem.

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6. The fair uses the expression  $x + y$  at the end of the day. What does this expression mean to the fair given the context of the problem?

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7. For her daughter’s birthday, Ms. Francis is planning a party in a recreation room. She is considering different food, beverage, and entertainment options. The table below is a list of variables and prices for specific items and entertainment.

<b>K</b> = Number of kids attending the party	<b>T</b> = Number of tables to set up
<b>A</b> = Number of adults attending the party	<b>C</b> = Number of chairs to set up
Chips = \$2 per bag	Soda = \$1 per can
DJ = \$15 per hour	Pizza = \$10 per pizza

Ms. Francis wrote the following expressions on a piece of paper and gave it to her partner to begin planning the party. What is the interpretation of the three expressions?

a)  $K + A$  \_\_\_\_\_

b)  $15D + 2B + 10P + S$  \_\_\_\_\_

c)  $3(K + A)$  \_\_\_\_\_

**Partner Practice:** (*Hard Difficulty*)

For questions 8-12, use the table and context below to create an expression that would represent the given situation.

For her daughter’s birthday, Ms. Francis is planning a party in a recreation room. She is considering different food, beverage, and entertainment options.

The following list of variables uses symbols to represent some quantities associated with the birthday party.

<b>K</b>	Number of Kids attending the party	<b>A</b>	Number of Adults attending the party
<b>R</b>	Number of chairs for the party	<b>T</b>	Number of Tables for the party
<b>P</b>	Number of Pizzas ordered for the party	<b>C<sub>P</sub></b>	Cost (in dollars) for one Pizza
<b>S</b>	Number of cases (24 cans) of Soft drinks ordered for the party	<b>C<sub>S</sub></b>	Cost (in dollars) for a case of Soft drinks
<b>B</b>	Number of Bunches of balloons ordered for the party	<b>C<sub>B</sub></b>	Cost (in dollars) for a Bunch of balloons
<b>D</b>	Number of hours the DJ will play at the party	<b>C<sub>D</sub></b>	Total cost (in dollars) for the DJ hired for the party
<b>H</b>	Number of bags of cHips ordered for the party	<b>C<sub>H</sub></b>	Cost (in dollars) for a bag of cHips

- Context is annotated for key information and meaning
- Components of the expression are described in context
- Interpretation of entire expression is written as a statement in context

8. Write an expression that could be used to determine the total cost of all balloons purchased.

Expression: \_\_\_\_\_

9. Write an expression that could be used to determine the total cost of all pizzas ordered, soft drinks purchased, and bags of chips bought.

Expression: \_\_\_\_\_

10. Write an expression that could be used to determine the price per hour that the DJ charges

Expression: \_\_\_\_\_

11. Write an expression that could be used to determine the total cost of the party

Expression: \_\_\_\_\_

12. Modify your expression in question 10 so that it could be used to determine the cost per person attending the party.

Expression: \_\_\_\_\_