SECTION 1.3 **ALGEBA 2** **THOMPSON**

ALGEBRAIC EXPRESSIONS

1) Write an algebraic expression that models the word phrase.

the sum of the product of a number x and 12, and 5

Choose the correct answer below.

- A. $(12+5)x$
- B. $12x+5$
- C. $5x+12$
- D. $60+x$

product of x and 12 then add 5 (sum)

2) Evaluate the expression for $x = -4$ and $y = 4$.

$5x+2y$

$5(-4) + 2(4)$

$-20 + 8 = -12$

3) Translate to an algebraic expression.

5 more than y

$y + 5$

4) Write an algebraic expression that models the word phrase.

the product of 7 and the sum of a number x and 19 $7(x + 19)$

5) Write an algebraic expression that models the situation.

Jenny had $122, but she is spending $20 per month.

make sure to use m for month $122 - 20m$

6) Write an algebraic expression that models the situation.

Jenny had $146, but she is spending $8 per week.

make sure to use w for week 146 - 8w

7) At a charity fund-raiser, adult tickets were sold for $7 each and children's tickets were sold for $2 each. Write an algebraic expression for the total amount of money raised from the sale of tickets. How much money was raised if the fundraiser sold 250 adult tickets and 373 children's tickets?

Let a = the number of adult tickets and let c = the number of child tickets. Then, an algebraic expression for the total money raised from the sale of tickets is ☐.

7a + 2c evaluate if a = 250 and c = 373

7(250) + 2(373) = $2,496

8) At a charity fund-raiser, adult tickets were sold for $9 each and children's tickets were sold for $2 each. Write an algebraic expression for the total amount of money raised from the sale of tickets. How much money was raised if the fundraiser sold 232 adult tickets and 378 children's tickets?

9a + 2c evaluate if a = 232 and c = 378

9(232) + 2(378) = $2,844

9) Simplify by combining like terms.

$4r - 7r + 9 + r$ -2r + 9 *put 4 -7+1 in calculator for r*

10) Simplify the following expression by combining like terms.

$4x + 3x^2 - 6x + 9x^2$ $12x^2 - 2x$

11) Simplify by combining like terms.

$3r - 7r + 7 + r$ -3r + 7 *put 3 -7+1 in calculator for r*

12) Simplify the following expression by combining like terms.

$5x + 8x^2 - 9x + 2x^2$ $10x^2 - 4x$