Name _____

Evaluating Expressions

To evaluate an expression, follow these steps:

1. Substitute or replace the variable with the value given in the problem.
2. Perform the operation or operations.
3. If there is more than one operation, use the order of operations.

Evaluate $4 + 2n$ for 3.

Replace n with 3.	$4 + 2(3)$
Multiply first.	$4 + 6$
Then add.	10

The value of the expression is 10.

Evaluate $g^2 - 3(3) + g \div 2$; $g = 4$.

Replace g with 4.	$4^2 - 3(3) + 4 \div 2$
Evaluate terms with exponents.	$16 - 3(3) + 4 \div 2$
Then multiply and divide.	$16 - 9 + 2$
Then subtract and add.	9

The value of the expression is 9.

Apply the substitutions and evaluate.

1. $12n$; $n = 3$ **2.** $2t - 4$; $t = 6$ **3.** $r + 48 \div r$; $r = 8$

_____ _____ _____

For **4–7,** evaluate each expression for 3, 6, and 8.

4. $7x$ _____, _____, _____ **5.** $6x + 4$ _____, _____, _____

6. $14 + x \div 2$ _____, _____, _____ **7.** $x + 2x$ _____, _____, _____

8. Katie rented a bicycle at the beach for $3 an hour plus a $5 fee. Write an expression that shows how much it will cost Katie to rent the bicycle. Then solve the expression for 4 hours.

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9. Writing to Explain Timothy is solving the problem $50 + 108x \div 4$. What order of operations should he follow?

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