LESSON MAKER PRO

Expression Mission

Substitute values and use order of operations.

GRADE 6 · 6.EE.A

CCSS.Math.Content.6.EE.A "Apply and extend previous understandings of arithmetic to algebraic expressions."

NAME _____ DATE _____

EVALUATE EXPRESSIONS

To evaluate an expression, replace each variable with its given value. Use parentheses to show the substitution, then follow the order of operations. Multiply or divide before you add or subtract.

WORKED EXAMPLE

Evaluate 5m + 4 when m = 7.

1. Replace m with 7: 5(7) + 4
2. Multiply: 35 + 4
3. Add: 39

Answer: 39

PRACTICE 6 problems

1 Evaluate 2a + 9 when a = 6.

ANSWER _____

2 Evaluate 18 - b/2 when b = 16.

ANSWER _____

3 Evaluate 6c - 13 when c = 9.

ANSWER _____

4 Evaluate 24/d + 15 when d = 2.

ANSWER _____

5 Evaluate 3(e + 10) when e = 11.

ANSWER _____

6 Evaluate f^2 + 14 when f = 6.

ANSWER _____

APPLY IT Show your work

1 A game gives 6 gems for each level completed. Leo already has 14 gems and completes 9 levels. Write and evaluate an expression for Leo's total number of gems.

WORK SPACE

ANSWER _____

2 In a coding game, a robot earns 8 energy points for each completed mission and spends 19 energy points to unlock a tool. It completes 6 missions. Write and evaluate an expression for the robot's energy points after unlocking the tool.

WORK SPACE

ANSWER _____

CHALLENGE One step up

Evaluate $6(2x + 8) - 13$ when $x = 9$.

WORK SPACE AND ANSWER

ANSWER KEY

Expression Mission

GRADE 6 · 6.EE.A

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Evaluate 2a + 9 when a = 6.	**21**
2	Evaluate 18 - b/2 when b = 16.	**10**
3	Evaluate 6c - 13 when c = 9.	**41**
4	Evaluate 24/d + 15 when d = 2.	**27**
5	Evaluate 3(e + 10) when e = 11.	**63**
6	Evaluate f^2 + 14 when f = 6.	**50**

PART 2 · APPLY IT

1. **68 gems** Let l represent the number of levels. Substitute l = 9: 6(9) + 14 = 54 + 14 = 68.
2. **29 energy points** Let m represent the number of missions. Substitute m = 6: 8(6) - 19 = 48 - 19 = 29.

CHALLENGE

143

For the word problems, accept any variable letter and an equivalent expression that evaluates to the stated total. In Part 1 and Challenge, accept correct order-of-operations work and the listed numerical value.