

Expression Explorer

Write, read, and evaluate number rules.

GRADE 6 • 6.EE.A.2

CCSS.Math.Content.6.EE.A.2 "Write, read, and evaluate expressions in which letters stand for numbers."

NAME _____

DATE _____

LETTERS STAND FOR NUMBERS

A letter in an expression stands for a number that can change. To evaluate an expression, replace the letter with its value, then use the order of operations.

WORKED EXAMPLE

Evaluate $5n - 2$ when $n = 8$.

1. Replace n with 8: $5(8) - 2$
2. Multiply: $40 - 2$
3. Subtract: 38

Answer: 38

PRACTICE 6 problems

- 1** Write an expression for 9 more than a number k .

ANSWER _____

- 2** Write an expression for the product of 7 and t .

ANSWER _____

- 3** Read the expression $12p$ in words.

ANSWER _____

- 4** Evaluate $6m + 1$ when $m = 7$.

ANSWER _____

- 5** Evaluate $q / 10 + 9$ when $q = 20$.

ANSWER _____

- 6** Write a phrase that matches $15 - d$.

ANSWER _____

APPLY IT Show your work

- 1** In a video game, you begin with 12 gems and earn 6 gems for each level you finish. Write an expression for your total number of gems after l levels. Then find the total after 7 levels.

WORK SPACE

ANSWER _____

- 2** A custom phone case costs \$10 plus \$9 for each sticker pack you add. Write an expression for the cost of p sticker packs. Then find the cost of 6 sticker packs.

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

Evaluate $16 + 7n$ when $n = 6$. Explain why you multiply before you add.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Write an expression for 9 more than a number k .	$k + 9$
2	Write an expression for the product of 7 and t .	$7t$
3	Read the expression $12p$ in words.	12 times p
4	Evaluate $6m + 1$ when $m = 7$.	43
5	Evaluate $q / 10 + 9$ when $q = 20$.	11
6	Write a phrase that matches $15 - d$.	15 minus d

PART 2 • APPLY IT

- 12 + 6l; 54 gems** Use $12 + 6l$ because there are 12 starting gems and 6 more gems per level. Substitute 7 for l :
 $12 + 6(7) = 54$.
- 10 + 9p; \$64** Use $10 + 9p$ because the case has a \$10 base cost and each pack costs \$9. Substitute 6 for p : $10 + 9(6) = 64$.

CHALLENGE

58; Multiplication comes before addition, so $7(6) = 42$ and $16 + 42 = 58$.

Accept equivalent expressions with factors in a different order, such as $t \times 7$ for $7t$. For reading and phrase items, accept clear equivalent wording.