

Expression Power

Write, read, and evaluate algebraic expressions.

GRADE 6 • NY-6.EE.2

NY-6.EE.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. To evaluate an expression, replace the letter with its value, then use the order of operations. Read multiplication such as $6x$ as "six times x ."

WORKED EXAMPLE

Evaluate $13m - 8$ when $m = 2$.

1. Replace m with 2: $13(2) - 8$.
2. Multiply: $26 - 8$.
3. Subtract: 18.

Answer: 18

PRACTICE 6 problems

- 1** Write an expression for seven more than x .

ANSWER _____

- 2** Evaluate $5x - 6$ when $x = 9$.

ANSWER _____

- 3** In $14 + 3x$, name the coefficient and the constant.

ANSWER _____

- 4** Write an expression for the quotient of x and 5, then add 11.

ANSWER _____

- 5** Evaluate $3(x + 7)$ when $x = 6$.

ANSWER _____

- 6** Write $6x - 5$ in words.

ANSWER _____

APPLY IT Show your work

- 1** A gaming club charges a \$15 entry fee and \$4 for each match you play. Let x be the number of matches. Write an expression for the total cost. Then find the total cost for 7 matches.

WORK SPACE

ANSWER _____

- 2** A school esports team starts with 30 bonus points and earns 6 points for each win. Let x be the number of wins. Write an expression for the team's points. Then find the points after 5 wins.

WORK SPACE

ANSWER _____

CHALLENGE One step up

Ava says that $5(x + 3)$ and $5x + 3$ have the same value when $x = 4$. Evaluate both expressions. Is Ava correct? Explain using the values you found.

WORK SPACE AND ANSWER

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Write an expression for seven more than x .	$x + 7$
2	Evaluate $5x - 6$ when $x = 9$.	39
3	In $14 + 3x$, name the coefficient and the constant.	coefficient: 3; constant: 14
4	Write an expression for the quotient of x and 5, then add 11.	$x/5 + 11$
5	Evaluate $3(x + 7)$ when $x = 6$.	39
6	Write $6x - 5$ in words.	six times x minus five

PART 2 • APPLY IT

- $15 + 4x$; \$43** The entry fee is added once, and \$4 is added for each match. Substitute 7 for x : $15 + 4(7) = 43$.
- $30 + 6x$; 60 points** Start with 30 points and add 6 points for each win. Substitute 5 for x : $30 + 6(5) = 60$.

CHALLENGE

$5(4 + 3) = 35$ and $5(4) + 3 = 23$. Ava is not correct because 35 is not equal to 23.

Accept equivalent expressions with terms written in a different order, such as $4x + 15$. For word answers, accept clear wording that states multiplication before subtraction.