

Plug In Power

Replace x, then calculate.

GRADE 6 • 6.PAR.6.4

6.PAR.6.4 "Evaluate expressions when given values for the variables, including expressions that arise in everyday situations."

NAME _____

DATE _____

EVALUATE EXPRESSIONS

To evaluate an expression, replace x with its given value. Then use the order of operations to find one numerical value.

WORKED EXAMPLE

Evaluate $3x + 8$ when $x = 7$.

1. Replace x with 7: $3(7) + 8$
2. Multiply: $21 + 8$
3. Add: 29

Answer: 29

PRACTICE 6 problems

1 Evaluate $5x + 6$ when $x = 4$.

ANSWER _____

2 Evaluate $19 - 2x$ when $x = 5$.

ANSWER _____

3 Evaluate $x/2 + 9$ when $x = 10$.

ANSWER _____

4 Evaluate $4(x + 2)$ when $x = 6$.

ANSWER _____

5 Evaluate $30 - x/5$ when $x = 10$.

ANSWER _____

6 Evaluate $6x - 11$ when $x = 9$.

ANSWER _____

APPLY IT Show your work

- 1** A gaming center charges a \$12 entry fee and \$5 for each hour. The cost is $12 + 5x$, where x is the number of hours. Find the cost when $x = 6$.

WORK SPACE

ANSWER _____

- 2** A music app gives 30 points for joining a challenge and 4 points for each song reviewed. The total is $30 + 4x$, where x is the number of songs reviewed. Find the total when $x = 5$.

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

Evaluate $2(x + 5) - 4$ when $x = 9$. Show your substitution and order of operations.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Evaluate $5x + 6$ when $x = 4$.	26
2	Evaluate $19 - 2x$ when $x = 5$.	9
3	Evaluate $x/2 + 9$ when $x = 10$.	14
4	Evaluate $4(x + 2)$ when $x = 6$.	32
5	Evaluate $30 - x/5$ when $x = 10$.	28
6	Evaluate $6x - 11$ when $x = 9$.	43

PART 2 • APPLY IT

1. **\$42** Substitute 6 for x : $12 + 5(6) = 42$.
2. **50 points** Substitute 5 for x : $30 + 4(5) = 50$.

CHALLENGE

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Accept correct substitution work and equivalent calculation steps. Answers should include units for the word problems.