

Expression Builders

Turn words into math expressions.

GRADE 6 • NY-6.EE.2.a

NY-6.EE.2.a "Write expressions that record operations with numbers and with letters standing for numbers."

NAME _____

DATE _____

WRITE WHAT HAPPENS

An expression shows calculations with numbers and a letter that stands for a number. Read carefully for the operation words and the order of the quantities. Use parentheses when a whole sum or difference is multiplied or divided.

WORKED EXAMPLE

Write an expression for 9 fewer than 4 times x .

1. Start with 4 times x : $4x$.
2. The words "9 fewer than" mean subtract 9.
3. Write $4x - 9$.

Answer: $4x - 9$

PRACTICE 6 problems

- 1** Write an expression for x increased by 13.

ANSWER _____

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

ANSWER _____

- 3** Write an expression for x divided by 5.

ANSWER _____

- 4** Write an expression for 18 less than x .

ANSWER _____

- 5** Write an expression for twice the sum of x and 6.

ANSWER _____

- 6** Write an expression for the quotient of the difference of x and 11 divided by 3.

ANSWER _____

APPLY IT Show your work

- 1** A music app charges \$15 to join and \$3 for each song download. You download x songs. Write an expression for the total cost in dollars.

WORK SPACE

ANSWER _____

- 2** In a card game, each of x players receives 6 cards. Then 10 extra cards are placed in the center. Write an expression for the total number of cards used.

WORK SPACE

ANSWER _____

CHALLENGE One step up

Each of x clubs orders 14 T-shirts at \$17 each and pays a \$19 shipping charge per club. Write an expression for the total cost. Then explain why the shipping charge belongs inside the parentheses.

WORK SPACE AND ANSWER

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Write an expression for x increased by 13.	$x + 13$
2	Write an expression for the product of 7 and x .	$7x$
3	Write an expression for x divided by 5.	$x/5$
4	Write an expression for 18 less than x .	$x - 18$
5	Write an expression for twice the sum of x and 6.	$2(x + 6)$
6	Write an expression for the quotient of the difference of x and 11 divided by 3.	$(x - 11)/3$

PART 2 • APPLY IT

1. $15 + 3x$ The joining fee is a one-time cost of 15. Add 3 dollars for each of x downloads.
2. $6x + 10$ The players receive 6 cards each, giving $6x$ cards. Add the 10 cards placed in the center.

CHALLENGE

$x(14(17) + 19)$, which is equivalent to $257x$. The \$19 shipping charge is paid by each club, so it is part of the cost for one club before multiplying by x .

Accept equivalent expressions that preserve the operations and grouping, such as $3x + 15$ for $15 + 3x$. In the challenge, accept $257x$ after correct simplification.