

Match Both Sides

Find out when two expressions have the same value.

GRADE 3 • 3.PAR.3.4

3.PAR.3.4 "Use the meaning of the equal sign to determine whether expressions involving addition, subtraction, and multiplication are equivalent."

NAME _____

DATE _____

EQUAL MEANS SAME

The equal sign means the amount on the left is the same as the amount on the right. Find the value of each side, then decide whether the values match. Expressions with the same value are equivalent.

WORKED EXAMPLE

$$7 + 8 = 3 \times 5$$

1. Add on the left: $7 + 8 = 15$.
2. Multiply on the right: $3 \times 5 = 15$.
3. Both sides show 15.

Answer: Yes, the expressions are equivalent.

PRACTICE 6 problems

- 1** $9 + 4 = 11 + 2$. Are the expressions equivalent?

ANSWER _____

- 2** $18 - 6 = 2 \times 6$. Are the expressions equivalent?

ANSWER _____

- 3** $16 + 4 = 6 \times 4$. Are the expressions equivalent?

ANSWER _____

- 4** $17 - 4 = 2 \times 6$. Are the expressions equivalent?

ANSWER _____

- 5** $20 - 9 = 17 - 6$. Are the expressions equivalent?

ANSWER _____

- 6** $12 + 9 = 4 \times 6$. Are the expressions equivalent?

ANSWER _____

APPLY IT Show your work

- 1** At a video game club, 4 teams earn 6 points each. Another scoreboard shows $26 - 2$ points. Do the two expressions show the same number of points?

WORK SPACE

ANSWER _____

- 2** A library gets 19 new graphic novels and lends out 9. Another cart holds 2 stacks of 6 graphic novels. Do the two expressions show the same number of graphic novels?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

Fill in the blank, then explain how you know both sides are equal: $44 - 20 = 6 \times \underline{\hspace{1cm}}$.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	$9 + 4 = 11 + 2$. Are the expressions equivalent?	Yes
2	$18 - 6 = 2 \times 6$. Are the expressions equivalent?	Yes
3	$16 + 4 = 6 \times 4$. Are the expressions equivalent?	No
4	$17 - 4 = 2 \times 6$. Are the expressions equivalent?	No
5	$20 - 9 = 17 - 6$. Are the expressions equivalent?	Yes
6	$12 + 9 = 4 \times 6$. Are the expressions equivalent?	No

PART 2 • APPLY IT

- Yes, both expressions equal 24.** Multiply 4×6 to get 24. Subtract $26 - 2$ to get 24, so the expressions are equivalent.
- No, $19 - 9$ equals 10 and 2×6 equals 12.** Subtract $19 - 9$ to get 10. Multiply 2×6 to get 12, so the expressions are not equivalent.

CHALLENGE

4. $44 - 20 = 24$, and $6 \times 4 = 24$.

Accept yes or no answers when the student correctly compares the values on both sides. For the challenge, accept any clear explanation that shows both sides equal 24.