

Equal Equation Quest

Show two expressions with the same value.

GRADE 3 • 3.CE.2.g

3.CE.2.g "Create an equation to represent the mathematical relationship between equivalent expressions using multiplication and/or division facts through 10×10 (e.g., $4 \times 3 = 14 - 2$, $35 \div 5 = 1 \times 7$)."

NAME _____

DATE _____

MATCH THE VALUES

When two expressions have the same value, place an equal sign between them. Use a multiplication or division fact to find a value, then find another expression with that same value.

WORKED EXAMPLE

Write an equation to show that 9×7 and $70 - 7$ are equal.

1. $9 \times 7 = 63$.

2. $70 - 7 = 63$.

3. Both expressions equal 63.

Answer: $9 \times 7 = 70 - 7$

PRACTICE 6 problems

1 Complete the equation: $4 \times 5 = 22 - \underline{\hspace{1cm}}$.

ANSWER _____

2 Complete the equation: $6 \times 6 = 30 + \underline{\hspace{1cm}}$.

ANSWER _____

3 Complete the equation: $8 \times 4 = 36 - \underline{\hspace{1cm}}$.

ANSWER _____

4 Complete the equation: $20 \div 4 = 5 \times \underline{\hspace{1cm}}$.

ANSWER _____

5 Complete the equation: $40 \div 5 = 16 \div \underline{\hspace{1cm}}$.

ANSWER _____

6 Write a multiplication expression to complete the equation: $48 \div 6 = \underline{\hspace{1cm}}$.

ANSWER _____

APPLY IT Show your work

- 1** At an arcade, Leo earns 8 prize tickets after each of 5 games. He wants to show his 40 tickets with a subtraction expression. Write an equation that shows both amounts.

WORK SPACE

ANSWER _____

- 2** A school garden club puts 40 seedlings into 5 equal rows. Write an equation that shows the number in each row using a multiplication expression.

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

Complete the equation. Then write one sentence explaining why it is true. $__ \times __ = 32 \div 4$

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Complete the equation: $4 \times 5 = 22 - \underline{\quad}$.	2
2	Complete the equation: $6 \times 6 = 30 + \underline{\quad}$.	6
3	Complete the equation: $8 \times 4 = 36 - \underline{\quad}$.	4
4	Complete the equation: $20 \div 4 = 5 \times \underline{\quad}$.	1
5	Complete the equation: $40 \div 5 = 16 \div \underline{\quad}$.	2
6	Write a multiplication expression to complete the equation: $48 \div 6 = \underline{\quad}$.	4×2

PART 2 • APPLY IT

- $8 \times 5 = 45 - 5$** Multiply 8 by 5 to get 40. Subtract 5 from 45 to get 40.
- $40 \div 5 = 4 \times 2$** Divide 40 by 5 to get 8. Multiply 4 by 2 to get 8.

CHALLENGE

$2 \times 4 = 32 \div 4$. Both sides equal 8.

Accept any true equation that uses the operation or expression form named in the prompt. For the challenge, accept any multiplication expression equal to 8, such as 1×8 , 2×4 , 4×2 , or 8×1 .