LESSON MAKER PRO

Equation Detective

Find the number that makes each equation true.

GRADE 3 · 3.OA.A.4

CCSS.Math.Content.3.OA.A.4 "Determine the unknown whole number in a multiplication or division equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations 8 × ? = 48, 5 = _ ÷ 3..."

NAME _____ DATE _____

FIND THE MISSING NUMBER

Use related multiplication and division facts to find x. Check your answer by putting it back into the equation and seeing if both sides are equal.

WORKED EXAMPLE

7 * x = 56

1. Divide both sides by 7.
2. 56 / 7 = 8.
3. x = 8.

Answer: x = 8

PRACTICE 6 problems

1 3 * x = 27

ANSWER _____

2 9 * x = 54

ANSWER _____

3 45 / 5 = x

ANSWER _____

4 5=x/9

ANSWER _____

5 60 / x = 10

ANSWER _____

6 11 * x = 66

ANSWER _____

APPLY IT Show your work

1 Lena has 45 stickers. She puts the same number of stickers on 5 album pages. How many stickers are on each page?

WORK SPACE

ANSWER _____

2 A class is building robot kits. Each kit needs 4 wheels, and the class has 36 wheels. How many robot kits can the class build?

WORK SPACE

ANSWER _____

CHALLENGE One step up

A maker club has 54 beads. It puts them equally into 6 trays. Then it divides the beads in each tray equally among 3 projects. How many beads does each project get? Write two division equations and explain your reasoning.

WORK SPACE AND ANSWER

ANSWER KEY

Equation Detective

GRADE 3 · 3.OA.A.4

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	3 * x = 27	**x=9**
2	9 * x = 54	**x=6**
3	45 / 5 = x	**x=9**
4	5=x/9	**x = 45**
5	60 / x = 10	**x=6**
6	11 * x = 66	**x=6**

PART 2 · APPLY IT

1. **9 stickers** Write 45 / 5 = x. Since 45 divided by 5 is 9, there are 9 stickers on each page.
2. **9 robot kits** Write 4 * x = 36. Since 36 divided by 4 is 9, the class can build 9 robot kits.

CHALLENGE

3 beads; 54 / 6 = 9, then 9 / 3 = 3. Each tray has 9 beads, and each project gets 3 beads.

Accept x written on either side of the equals sign. For the challenge, accept equivalent wording that shows both division steps and gives 3 beads.