LESSON MAKER PRO

Equation Power-Up

Use multiplication and division to find x.

GRADE 6 · MA.6.AR.2.3

MA.6.AR.2.3 "Write and solve one-step equations in one variable within a mathematical or real-world context using multiplication and division, where all terms and solutions are integers."

NAME _____ DATE _____

UNDO TO SOLVE

In a multiplication equation, divide both sides by the number multiplied by x. In a division equation, multiply both sides by the number under x to isolate x.

WORKED EXAMPLE

Solve 9x = 72.

1. Start with 9x = 72.
2. Divide both sides by 9.
3. x = 8.
4. Check: 9(8) = 72.

Answer: x = 8

PRACTICE 6 problems

1 Solve: x / 4 = 7

ANSWER _____

2 Solve: 5x = 35

ANSWER _____

3 Solve: 63 = 3x

ANSWER _____

4 Solve: x / 6 = 11

ANSWER _____

5 Solve: 12x = 84

ANSWER _____

6 Solve: x / 14 = 5

ANSWER _____

APPLY IT Show your work

1 A game club packs 42 trading cards into 6 equal prize bundles. Each bundle has x cards. Write and solve an equation to find x.

WORK SPACE

ANSWER _____

2 Five teams each pay the same fee to join an esports event. The event collects $60 total. Let x be the fee for one team. Write and solve an equation to find x.

WORK SPACE

ANSWER _____

CHALLENGE One step up

A player earns 91 tournament points over 7 equal winning rounds. The player also earned 15 practice points, but those are not part of the tournament total. Let x be the points earned in each winning round. Write and solve an equation. Explain why you did or did not use 15.

WORK SPACE AND ANSWER

ANSWER KEY

Equation Power-Up

GRADE 6 · MA.6.AR.2.3

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Solve: x / 4 = 7	**x = 28**
2	Solve: 5x = 35	**x=7**
3	Solve: 63 = 3x	**x = 21**
4	Solve: x / 6 = 11	**x = 66**
5	Solve: 12x = 84	**x=7**
6	Solve: x / 14 = 5	**x = 70**

PART 2 · APPLY IT

1. **6x = 42; x = 7 cards** Use 6x = 42 because there are 6 equal bundles. Divide 42 by 6 to find that each bundle has 7 cards.
2. **5x = 60; x = $12** Use 5x = 60 because 5 equal team fees make the total. Divide 60 by 5 to find the fee is $12.

CHALLENGE

7x = 91; x = 13.

Accept equivalent equation forms, such as 42 = 6x or 60 = 5x. For word problems, accept answers with correct units and a correct one-step multiplication equation.