LESSON MAKER PRO

Story Math Models

Use number sentences to solve real situations.

GRADE 4 · 4.MP.4

4.MP.4 "Model with mathematics."

NAME _____ DATE _____

BUILD A MATH MODEL

Turn the important information in a story into a number sentence. Solve the number sentence, then check that your answer fits the story.

WORKED EXAMPLE

Five prize bags hold 6 cards each. How many cards are in all?

1. There are 5 equal groups of 6 cards.
2. Model: 5 × 6 = ___.
3. Multiply: 5 × 6 = 30.

Answer: 30 cards

PRACTICE 5 problems

1 A reading team earns 8 points for each of 3 book reviews. Write a number sentence, solve, and check.

ANSWER _____

2 Leo sorts 17 trading cards before lunch and 9 after lunch. Write a number sentence, solve, and check.

ANSWER _____

3 A nature center has 42 tadpoles. Then 18 tadpoles move to another tank. Write a number sentence, solve, and check.

ANSWER _____

4 The art club plants 4 rows with 7 flowers in each row. Write a number sentence, solve, and check.

ANSWER _____

5 Thirty-six snack packs are shared equally by 4 teams. Write a number sentence, solve, and check with multiplication.

ANSWER _____

APPLY IT Show your work

1 Jada has 48 game tokens. A level pass costs 75 tokens. She earns 9 tokens after each quest. Model the situation and find how many quests she needs. Check your answer.

WORK SPACE

ANSWER _____

2 The school fair needs to raise 100 dollars for a new game. It already has 28 dollars. Each car wash earns 9 dollars. Model the situation and find how many car washes are needed. Check your answer.

WORK SPACE

ANSWER _____

CHALLENGE One step up

A robotics club has 92 dollars. It buys 3 kits for 12 dollars each, then shares the money left equally among 7 members. How much does each member get? Model the situation, solve it, and explain why you subtract before dividing.

WORK SPACE AND ANSWER

ANSWER KEY

Story Math Models

GRADE 4 · 4.MP.4

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	A reading team earns 8 points for each of 3 book reviews. Write a number sentence, solve, and check.	**3 × 8 = 24 points. Check: 24 ÷ 3 = 8.**
2	Leo sorts 17 trading cards before lunch and 9 after lunch. Write a number sentence, solve, and check.	**17 + 9 = 26 cards. Check: 26 - 17 = 9.**
3	A nature center has 42 tadpoles. Then 18 tadpoles move to another tank. Write a number sentence, solve, and check.	**42 - 18 = 24 tadpoles. Check: 24 + 18 = 42.**
4	The art club plants 4 rows with 7 flowers in each row. Write a number sentence, solve, and check.	**4 × 7 = 28 flowers. Check: 28 ÷ 4 = 7.**
5	Thirty-six snack packs are shared equally by 4 teams. Write a number sentence, solve, and check with multiplication.	**36 ÷ 4 = 9 packs per team. Check: 4 × 9 = 36.**

PART 2 · APPLY IT

1. **3 quests** 75 - 48 = 27 tokens still needed. Then 27 ÷ 9 = 3, and 48 + 3 × 9 = 75.
2. **8 car washes** 100 - 28 = 72 dollars still needed. Then 72 ÷ 9 = 8, and 28 + 8 × 9 = 100.

CHALLENGE

Each member gets 8 dollars. First subtract the kit cost because 3 × 12 = 36 dollars is spent: 92 - 36 = 56. Then divide the 56 dollars left among 7 members: 56 ÷ 7 = 8. Check: 3 × 12 + 7 × 8 = 92.

Accept equivalent number sentences, including factors written in either order. Students may use addition, subtraction, multiplication, or division checks that correctly match the situation.