LESSON MAKER PRO

Compare With Times

Use multiplication and division to compare amounts.

GRADE 4 · 4.OA.A.2

CCSS.Math.Content.4.OA.A.2 "Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem..."

NAME _____ DATE _____

COMPARE WITH TIMES

In a multiplicative comparison, one amount is a number of times as many as another amount. Multiply when you know the smaller amount and the number of times. Divide when you know the larger amount and the number of times. Words such as "more than" without "times" usually show an additive comparison.

WORKED EXAMPLE

A comic shop has 8 times as many hero cards as villain cards. It has 7 villain cards. How many hero cards does it have?

1. Let x = number of hero cards.
2. x = 8 * 7
3. x = 56

Answer: 56 hero cards

PRACTICE 6 problems

1 Lena has 6 times as many beads as Kai. Kai has 5 beads. Let x be Lena's number of beads. Write and solve an equation.

ANSWER _____

2 A collection has 54 trading cards. This is 6 times as many as another collection. Let x be the number of cards in the smaller collection. Write and solve an equation.

ANSWER _____

3 Ava has 24 points. Ben has 5 more points than Ava. Let x be Ben's number of points. Is this additive or multiplicative? Write and solve an equation.

ANSWER _____

4 One shelf holds 4 times as many comics as another shelf. The smaller shelf holds 9 comics. Let x be the number of comics on the larger shelf. Write and solve an equation.

ANSWER _____

5 A library has 66 mystery books. This is 6 times as many as its science books. Let x be the number of science books. Write and solve an equation.

ANSWER _____

6 A short video has 3 times as many scenes as a trailer with 12 scenes. Let x be the number of scenes in the short video. Write and solve an equation.

ANSWER _____

APPLY IT Show your work

1 At a game booth, Priya won 84 tickets. She won 4 times as many tickets as Mateo. How many tickets did Mateo win?

WORK SPACE

ANSWER _____

2 A skateboard ramp is 5 times as long as a board that is 13 feet long. How long is the ramp?

WORK SPACE

ANSWER _____

CHALLENGE One step up

At an arcade, Lin has 60 tokens. Lin has 4 times as many tokens as Omar. Zoe has 3 times as many tokens as Omar. How many tokens does Zoe have? Show two equations.

WORK SPACE AND ANSWER

ANSWER KEY

Compare With Times

GRADE 4 · 4.OA.A.2

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Lena has 6 times as many beads as Kai. Kai has 5 beads. Let x be Lena's number of beads. Write and solve an equation.	**x = 6 * 5 = 30 beads**
2	A collection has 54 trading cards. This is 6 times as many as another collection. Let x be the number of cards in the smaller collection. Write and solve an equation.	**6 * x = 54; x = 9 cards**
3	Ava has 24 points. Ben has 5 more points than Ava. Let x be Ben's number of points. Is this additive or multiplicative? Write and solve an equation.	**Additive; x = 24 + 5 = 29 points**
4	One shelf holds 4 times as many comics as another shelf. The smaller shelf holds 9 comics. Let x be the number of comics on the larger shelf. Write and solve an equation.	**x = 4 * 9 = 36 comics**
5	A library has 66 mystery books. This is 6 times as many as its science books. Let x be the number of science books. Write and solve an equation.	**6 * x = 66; x = 11 books**
6	A short video has 3 times as many scenes as a trailer with 12 scenes. Let x be the number of scenes in the short video. Write and solve an equation.	**x = 3 * 12 = 36 scenes**

PART 2 · APPLY IT

1. **21 tickets** Let x be Mateo's tickets. Since 4 * x = 84, divide 84 by 4 to get x = 21.
2. **65 feet** Multiply the board length by 5. 5 * 13 = 65.

CHALLENGE

4 * x = 60, so x = 15 tokens for Omar. Zoe has 3 * 15 = 45 tokens.

Accept equivalent equations that correctly show multiplication or division and the correct labeled answer. In Problem 3, accept an explanation that identifies 5 more as an additive comparison, not a times comparison.