LESSON MAKER PRO

Find the Missing Amount

Turn a story into an equation, then explain your answer.

GRADE 7 · 7.AT.C.8.c

7.AT.C.8.c "Solve word problems leading to equations of these forms and interpret the solution in terms of the context."

NAME _____ DATE _____

BUILD THE EQUATION

Let x stand for the amount you need to find. If the same group of amounts repeats, put the sum in parentheses before multiplying. If an amount is added just once, place it outside the multiplication. Solve, then name what x means in the story.

WORKED EXAMPLE

A craft club makes 13 identical gift bags. Each bag holds x paper stars and 7 beads. The bags hold 260 items in all. How many paper stars are in each bag?

1. 13(x + 7) = 260
2. x + 7 = 20
3. x = 13

Answer: 13 paper stars per bag

PRACTICE 6 problems

1 A skate rink charges a $6 entry fee plus $4 per hour. Your total cost is $30. How many hours did you skate?

ANSWER _____

2 Each of 10 players gets 8 tokens plus x bonus tokens. The players get 120 tokens in all. Write an equation and find how many bonus tokens each player gets.

ANSWER _____

3 You have 18 photos and save 6 more each day. After how many days will you have 66 photos?

ANSWER _____

4 You buy 4 movie tickets. Each ticket costs $x plus a $2 booking fee. You pay $56 in all. Write an equation and find the cost of one ticket before the fee.

ANSWER _____

5 A club has $24 saved and raises $12 each week. How many weeks will it take to have $96?

ANSWER _____

6 A team orders 6 identical snack bundles. Each bundle has x granola bars and 4 fruit cups. The bundles contain 84 items in all. Write an equation and find how many granola bars are in each bundle.

ANSWER _____

APPLY IT Show your work

1 A group reserves a karaoke room for $16 and pays $8 per person for snacks. The total is $80. Write an equation, then find how many people are in the group.

WORK SPACE

ANSWER _____

2 At a gaming café, 6 friends each buy a game pass for $x and a $4 drink. Together they pay $96. Write an equation, then find the price of one game pass.

WORK SPACE

ANSWER _____

CHALLENGE One step up

A fan club orders 8 identical mystery boxes. Each box has x trading cards and 6 stickers. The club also gets 16 free stickers outside the boxes. There are 128 items in all. Write an equation and explain how you know the number of trading cards in each box.

WORK SPACE AND ANSWER

ANSWER KEY

Find the Missing Amount

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PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	A skate rink charges a $6 entry fee plus $4 per hour. Your total cost is $30. How many hours did you skate?	**6 hours**
2	Each of 10 players gets 8 tokens plus x bonus tokens. The players get 120 tokens in all. Write an equation and find how many bonus tokens each player gets.	**10(x + 8) = 120; 4 bonus tokens per player**
3	You have 18 photos and save 6 more each day. After how many days will you have 66 photos?	**8 days**
4	You buy 4 movie tickets. Each ticket costs $x plus a $2 booking fee. You pay $56 in all. Write an equation and find the cost of one ticket before the fee.	**4(x + 2) = 56; $12 per ticket before the fee**
5	A club has $24 saved and raises $12 each week. How many weeks will it take to have $96?	**6 weeks**
6	A team orders 6 identical snack bundles. Each bundle has x granola bars and 4 fruit cups. The bundles contain 84 items in all. Write an equation and find how many granola bars are in each bundle.	**6(x + 4) = 84; 10 granola bars per bundle**

PART 2 · APPLY IT

1. **8 people** Let x be the number of people. Solve 16 + 8x = 80 to get x = 8.
2. **$12 per game pass** Solve 6(x + 4) = 96 to get x = 12. The game pass costs $12, not including the drink.

CHALLENGE

8 trading cards per box. The equation is 8(x + 6) + 16 = 128. Subtract 16 to get 112 items in the boxes. Divide by 8 to get 14 items per box, then subtract 6 stickers to get x = 8.

Accept equivalent equations with terms in a different order. Answers should identify what the number represents and include units when needed.