

Story Equation Studio

Turn equations into matching math stories.

GRADE 5 • 5.PFA.2.d

5.PFA.2.d "Create and write a word problem to match a given equation with a single variable and one operation."

NAME _____

DATE _____

MATCH THE STORY

Read the equation first. Turn each number into an amount in your story, make the blank the unknown, and use words that show the operation. Your question should ask for what the blank represents.

WORKED EXAMPLE

Write a word problem for $84 \div \underline{\hspace{1cm}} = 7$.

1. 84 is the total amount.
2. The blank is the number of equal groups.
3. 7 is the amount in each group.
4. Write a question that asks for the number of groups.

Answer: A coach has 84 water bottles. She puts 7 bottles in each cooler. How many coolers does she fill?

PRACTICE 6 problems

1 Write a word problem for $\underline{\hspace{1cm}} + 27 = 65$.

ANSWER _____

2 Write a word problem for $91 - \underline{\hspace{1cm}} = 46$.

ANSWER _____

3 Write a word problem for $8 * \underline{\hspace{1cm}} = 56$.

ANSWER _____

4 Write a word problem for $72 \div \underline{\hspace{1cm}} = 9$.

ANSWER _____

5 Write a word problem for $\underline{\hspace{1cm}} - 34 = 19$.

ANSWER _____

6 Write a word problem for $6 * \underline{\hspace{1cm}} = 42$.

ANSWER _____

APPLY IT Show your work

1 A trading-card club has 5 equal binder pages with 12 cards on each page. Write a word problem that matches $\underline{\hspace{1cm}} / 5 = 12$.

WORK SPACE

ANSWER _____

2 A player wants an item in a video game that costs 73 coins. Write a word problem that matches $48 + \underline{\hspace{1cm}} = 73$.

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

Write a word problem for $96 \div \underline{\hspace{1cm}} = 12$. Then explain why your question asks for the number of groups, not the number in each group.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Write a word problem for $___ + 27 = 65$.	A library had some new comics. It received 27 more comics and now has 65 comics. How many comics did it have at first?
2	Write a word problem for $91 - ___ = 46$.	Kai had 91 points. He spent some points on a game item and had 46 points left. How many points did he spend?
3	Write a word problem for $8 * ___ = 56$.	There are 8 tables with the same number of markers. There are 56 markers altogether. How many markers are on each table?
4	Write a word problem for $72 / ___ = 9$.	A teacher has 72 stickers. She puts 9 stickers in each prize bag. How many prize bags does she fill?
5	Write a word problem for $___ - 34 = 19$.	A music playlist had some songs. After 34 songs were removed, 19 songs remained. How many songs were on the playlist at first?
6	Write a word problem for $6 * ___ = 42$.	Six snack packs have the same number of crackers. There are 42 crackers altogether. How many crackers are in each pack?

PART 2 • APPLY IT

- A trading-card club puts its cards equally on 5 binder pages. Each page has 12 cards. How many cards does the club have altogether?** The blank is the total number of cards. The story must give 5 equal pages and 12 cards on each page, then ask for the total.
- A player has 48 coins. A game item costs 73 coins. How many more coins does the player need?** The blank is the number of coins needed. The story starts with 48 coins and asks how many more are needed to reach 73 coins.

CHALLENGE

A jewelry maker has 96 beads. She puts 12 beads on each bracelet. How many bracelets can she make? The blank is the number of bracelets because 96 beads are split into that many groups of 12.

Accept any realistic word problem that uses the same quantities, operation, and unknown position as the equation. Students may use different names, objects, or settings if the mathematical relationship stays the same.