LESSON MAKER PRO

Solve With Purpose

Use facts, a plan, and a check.

GRADE 6 · TEKS 6.1.B

6.1.B "use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution;"

NAME _____ DATE _____

SOLVE WITH PURPOSE

First, list what you know and what you need. Choose operations, solve in order, then use an inverse operation or estimate to explain why your answer makes sense.

WORKED EXAMPLE

A team has 30 water bottles and puts 5 bottles in each crate. How many crates are needed?

1. Known: 30 bottles, 5 per crate.
2. Plan: divide 30 by 5.
3. 30/5 = 6.
4. Check: 6 x 5 = 30.

Answer: 6 crates

PRACTICE 5 problems

1 The art club puts 32 buttons into equal packs of 8. How many packs? Name your operation and check.

ANSWER _____

2 Three friends buy tickets at $9 each for a game. What is the total cost? Name your operation and check.

ANSWER _____

3 A reader finishes 63 pages in 9 equal reading sessions. How many pages are in each session? Show a check.

ANSWER _____

4 A student has $56 and buys 4 sketchpads for $12 each. How much money is left? Show your plan and check.

ANSWER _____

5 A camp has 78 students riding in 3 equal vans. How many students ride in each van? Show a check.

ANSWER _____

APPLY IT Show your work

1 A robotics team earns $84. It gives $12 to charity, then shares the rest equally among 8 members. How much does each member get? Explain why your answer is reasonable.

WORK SPACE

ANSWER _____

2 A club buys 8 sheets of 15 raffle tickets. It sells 37 tickets. How many tickets remain? Show a plan and check.

WORK SPACE

ANSWER _____

CHALLENGE One step up

A school store has $125. It buys 7 packs of pens for $13 each and 4 posters for $8 each. Does the store have enough money? Explain your reasoning.

WORK SPACE AND ANSWER

ANSWER KEY

Solve With Purpose

GRADE 6 · TEKS 6.1.B

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	The art club puts 32 buttons into equal packs of 8. How many packs? Name your operation and check.	**Divide: 32/8 = 4. Check: 4 x 8 = 32, so 4 packs.**
2	Three friends buy tickets at $9 each for a game. What is the total cost? Name your operation and check.	**Multiply: 3 x 9 = 27. Check: 27/3 = 9, so $27.**
3	A reader finishes 63 pages in 9 equal reading sessions. How many pages are in each session? Show a check.	**Divide: 63/9 = 7. Check: 7 x 9 = 63, so 7 pages.**
4	A student has $56 and buys 4 sketchpads for $12 each. How much money is left? Show your plan and check.	**Multiply, then subtract: 4 x 12 = 48; 56 - 48 = 8. Check: 48 + 8 = 56, so $8.**
5	A camp has 78 students riding in 3 equal vans. How many students ride in each van? Show a check.	**Divide: 78/3 = 26. Check: 26 x 3 = 78, so 26 students.**

PART 2 · APPLY IT

1. **$9 per member** Subtract first: 84 - 12 = 72. Then 72/8 = 9, and 8 x 9 + 12 = 84.
2. **83 tickets** Find the total, then subtract: 8 x 15 = 120 and 120 - 37 = 83. Check: 83 + 37 = 120.

CHALLENGE

Yes. The pens cost $91 and the posters cost $32, for $123 total. Since $123 is less than $125, the store has $2 left.

Accept equivalent equations and clear written plans. Students should show a check or a reasonable explanation for each answer.