LESSON MAKER PRO

Operation Detectives

Solve two-step problems and spot number patterns.

GRADE 3 · 3.OA.D

CCSS.Math.Content.3.OA.D "Solve problems involving the four operations, and identify and explain patterns in arithmetic."

NAME _____ DATE _____

PLAN TWO STEPS

Some problems need two operations. Read carefully, choose the operation for the first action, solve it, and then use that answer in the second action. Check that your final answer makes sense.

WORKED EXAMPLE

There are 18 beads shared equally among 6 bracelets. Then 3 more beads are added to each bracelet. How many beads are on each bracelet?

1. Share the beads: 18 / 6 = 3.
2. Add the new beads: 3 + 3 = 6.
3. Each bracelet has 6 beads.

Answer: 6 beads on each bracelet

PRACTICE 6 problems

1 Solve: (28 / 7) + 4

ANSWER _____

2 Solve: (9 x 5) - 7

ANSWER _____

3 Solve: (64 - 24) / 8

ANSWER _____

4 Solve: (7 x 8) + 9

ANSWER _____

5 Solve: (72 / 8) + 5

ANSWER _____

6 Find the next two numbers: 14, 21, 28, __, __

ANSWER _____

_____

APPLY IT Show your work

1 Jalen puts 32 trading cards equally on 8 binder pages. Then he adds 7 more cards to each page. How many cards are on each page now?

WORK SPACE

ANSWER _____

2 Nora earns 8 game tickets each day for 7 days. She also earns a bonus of 9 tickets. How many tickets does Nora earn altogether?

WORK SPACE

ANSWER _____

CHALLENGE One step up

The pattern is 5, 10, 20, 40, __, __. Write the next two numbers and explain the rule.

WORK SPACE AND ANSWER

ANSWER KEY

Operation Detectives

GRADE 3 · 3.OA.D

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Solve: (28 / 7) + 4	**8**
2	Solve: (9 x 5) - 7	**38**
3	Solve: (64 - 24) / 8	**5**
4	Solve: (7 x 8) + 9	**65**
5	Solve: (72 / 8) + 5	**14**
6	Find the next two numbers: 14, 21, 28, __, __	**35, 42**

PART 2 · APPLY IT

1. **11 cards on each page** First divide 32 by 8 to find the cards on each page. Then add 7 cards to each page.
2. **65 tickets** Multiply 8 by 7 to find the tickets earned over 7 days. Then add the 9 bonus tickets.

CHALLENGE

80, 160. The rule is multiply by 2 each time.

Accept correct numerical answers with or without written equations. For the challenge, accept any clear explanation that the number doubles, or is multiplied by 2, each time.