

MY Homework

Lesson 4

Problem Solving: Work Backward

Homework Helper



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Peyton and his friends built an outdoor game board in the shape of a rectangle that has a length of 4 feet and a width of 2 feet. If they cut a circular hole that has an area of 1 square foot, what is the area of the game board that does not include the hole?

1 Understand

What facts do you know?

the length and width of the game board

the area the hole takes up

What do you need to find?

the area of the game board, not including the hole

2 Plan

I can work backward to solve the problem.

3 Solve

Find the area of the game board. (Hint: Area = length \times width)

$$4 \times 2 = 8 \text{ square feet}$$

Subtract the area of the hole from the area of the game board.

$$8 - 1 = 7 \text{ square feet}$$

So, the game board that Peyton and his friends built has an area of 7 square feet, not including the hole.

4 Check

Is my answer reasonable? Explain.

area of game board + area of hole = total area

7 square feet + 1 square foot = 8 square feet




Problem Solving

Solve each problem by working backward.

1. The science club raised money to clean the beach. They spent \$29 on trash bags and \$74 on waterproof boots. They still have \$47 left. How much did they raise?

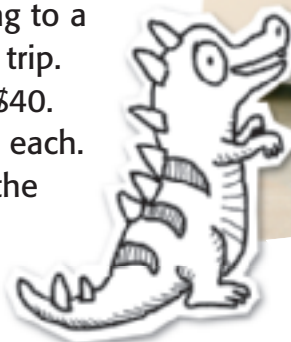
2. Mr. Charles cut fresh roses from his garden and gave 10 roses to his neighbor. Then he gave half of what was left to his niece. He kept the remaining 14 roses. How many roses did he cut?

3. **Mathematical PRACTICE**  **Use Number Sense** A number is divided by 6. Then 8 is added to the quotient. Next 3 is subtracted from the sum. The result is 7. What is the number?

4. Hoover Dam, in the United States, is 223 meters high. Ertan Dam, in China, is 240 meters high. Write and evaluate a numerical expression to find the difference between the heights of the two dams.

5. Ms. Houston's fifth-grade class is going to a museum. The class raises \$68 for the trip. Transportation to the museum costs \$40. The museum sells small fossils for \$4 each. How many fossils can they buy with the money they have left?

DINO-MITE!



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