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An **equation** is an open sentence that says two expressions are equal. An equation can describe a situation.

Melina is \triangle years old. Wade is 3 years younger than Melina. Wade is 7 years old.

If $\triangle =$ Melina's age, this situation can be described with the equation $\triangle - 3 = 7$.

The variable in an equation stands for a missing number.

Read each problem. Circle the letter of the best answer.

- 1** There were \square goldfish crackers in a bag. Danny ate 20 of them. There were 60 goldfish crackers left in the bag. Which equation describes this situation?

- A** $\square + 20 = 60$
B $\square - 20 = 60$
C $\square \times 20 = 60$
D $\square \div 20 = 60$

The number of goldfish crackers Danny ate, 20, is subtracted from the total number in the bag, \square , and the number left is 60. So the equation is $\square - 20 = 60$. The correct answer is B.

- 2** When a mystery number, \star , is multiplied by 6, the answer is 18. Which equation shows this?

- A** $\star + 6 = 18$
B $\star \times 6 = 18$
C $\star = 6 \times 18$
D $\star = 6 \div 18$

- 3** Selene had 12 dog stickers on her backpack. Today she put \triangle more dog stickers on her backpack, and now there are 17 in all. Which equation shows this?

- A** $12 + 17 = \triangle$
B $12 - 17 = \triangle$
C $12 + \triangle = 17$
D $12 \times \triangle = 17$

- 4** A pizza weighed a total of \square ounces. It was cut into 8 equal pieces. Each piece weighed 4 ounces. Which equation describes this situation?

- A** $8 - \square = 4$
B $8 \div \square = 4$
C $\square \times 8 = 4$
D $\square \div 8 = 4$

Read each problem. Write your answers.

5 Freddie's family stayed in a motel 300 yards from the beach. They walked \star yards from the motel and had 120 yards left to the beach.

A Write an equation to describe this situation.

Answer: _____

B Explain how you found your answer.

6 Addison's classroom has 5 shelves of picture books. Each shelf has \triangle books. There are 120 picture books in all.

A Write an equation to describe this situation.

Answer: _____

B Addison says there are more than 10 picture books on each shelf. Is Addison right?

Answer: _____

C Explain how you decided if there are more than 10 picture books on each shelf.
