Problem Solving: Choose an Appropriate Equation

Nora has 10 marbles. She puts the marbles into 2 bags. How many marbles does she put in each bag?

First, draw a picture to show what you know.

You know the total, 10 marbles.
You know how many groups, 2.
You need to find out how many in each group.

Which equation shows the problem?

A \[ 2 + n = 10 \] No, this equation shows putting together groups that are different sizes.
B \[ n = 2 \times 10 \] No, this shows 2 groups of 10 marbles.
C \[ 10 \div 2 = n \] Yes, this shows the total number of marbles divided, or separated into 2 equal groups.
D \[ 10 - 2 = n \] No, this shows taking away from the total number of marbles.

Choose the equation that shows the problem.

1. Kali has 15 cards. She makes 3 stacks of cards. How many cards are in each stack?
   A \[ 15 \div 3 = n \]
   B \[ n \div 3 = 15 \]
   C \[ 15 - 3 = n \]
   D \[ 3 + n = 15 \]

2. The pet shop has 5 fish tanks. There are 8 fish in each tank. How many fish are there in all?
   A \[ 8 + 5 = n \]
   B \[ n = 8 \times 5 \]
   C \[ 8 \div n = 5 \]
   D \[ 5 + n = 8 \]