

4. Jenna and Katie work on Problem 3 about picking pairs of marbles from two bags.

Jenna draws the tree diagram in Figure 5A.1 and says that there are 6 ways to pick a pair of marbles from the two bags. What's wrong with Jenna's reasoning?

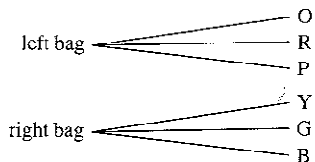


Figure 5A.1
Jenna's Tree Diagram

Katie draws the tree diagram in Figure 5A.2 and counts all the labels (letters) on her tree diagram. Katie says that there are

$$3 + 9 = 12$$

ways to pick a pair of marbles from the two bags. What's wrong with Katie's reasoning?

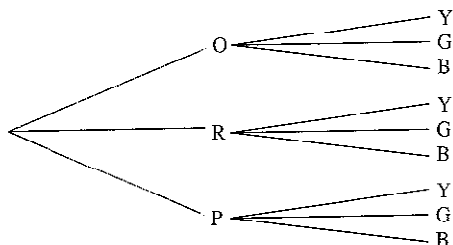


Figure 5A.2
Katie's Tree Diagram