

5. Find the following probabilities for Ms. Anderson's three preschoolers.

a) All three children are the same gender.

b) At least one of the three children is a girl.

c) The first two children are not the same gender as each other.

d) At least one of the three children is a four-year-old.

e) The oldest girl in the class is one of the three children.

f) The oldest girl in the class is not one of the three children.

4-E Expected Value

6. Josh bets \$10 and rolls a 6-sided die twice. If the first roll is a 1, he wins \$30. If both rolls are 6, he wins \$150.

Calculate the expected value for the following.

a) Josh's gain each time he plays

b) Josh's overall gain if he plays 10 times

c) the casino's overall gain if Josh plays 10 times

d) an estimate for the casino's earnings per hour, per player