

**Name:**

**Statistics**

**Date:**

**Practice Quiz 3-D**

1. In a casino game, a player pays \$2 and draws two cards. If both cards are hearts, the player wins \$5. If both cards are aces, the player wins \$50.

a) Calculate the players' expected value.

*Add the expected value of hearts and the expected value of aces, and subtract the cost to play.*

b) Change the prize value for the aces so that the player will expect to gain approximately, but not more than, 75¢ per game, and calculate the new expected value.

*Increasing the prize value increases the expected value overall, and vice versa.*

2. Violet pays Laurel \$1 and flips a coin. If she wins the coin flip, Laurel will pay her \$3.

a) How much does Violet expect to gain on average for each coin flip?

*What is the expected value?*

b) How much does Laurel expect to gain on average for each coin flip?

*Marshall gains what Danica loses.*

3. Explain the difference between .75¢ and 75¢.

*75 is much bigger than .75.*