Unit 3 Day 2:
Probability Distributions
(5.2) Expected Value

Example

A game consists of rolling a colored die with three red sides, two green sides, and one blue side. A roll of a red loses. A roll of a green pays \$2. A roll of blue pays \$5. The charge to play the game is \$2. Would you play this game? Why or why not?

Sep 28-12:46 PM

Sep 28-12:47 PM

Example

Your company plans to invest in a project. There is a 35% chance that you will lose \$30,000, a 40% chance that you will break even, and a 25% chance that you will make \$55,000. Based on this information, what should you do?

Example

A game consists of rolling a colored die with three green sides, two red sides, and one blue side. A roll of a red loses. A roll of a blue pays \$6. A roll of green pays \$2. What is a "fair" price to pay to play?

Sep 28-12:48 PM

Sep 28-12:48 PM

Example

A player rolls a die and receives the number of dollars equal to the number on the die except when the die shows a 6. If a 6 is rolled, the player loses \$6. If the game is to be fair, what should be the cost of the game?

Assignment:

Unit Plan Day 2 HW Worksheet

Unit 4 Quiz

Monday 2/24

Unit 4 Test

Friday 3/13

Sep 28-12:48 PM Mar 9-2:50 PM