

## HOMEWORK: EXPECTED VALUE

### EXPECTED VALUES:

#### PROBLEM 1: Expected Value

What is the expected value of a lottery ticket where there is only two chances in a million of winning the grand prize of \$10 Million?

#### PROBLEM 2: Expected Value

You have been offered a chance to purchase a lottery ticket with a 1% chance of making \$1,000; 4% chance of making \$100; and 95% chance of making \$0. The price of the ticket is \$15. Should you buy it? Why?

#### PROBLEM 3: Expected Value

You have been offered a business deal. You estimate that there is a 1% chance of making \$100,000; 4% chance of making \$40,000; a 20% chance of making \$10,000; and 75% chance of making \$0. How much should you be willing to pay for this deal? Do you think you would actually pay that much? Why or why not?