

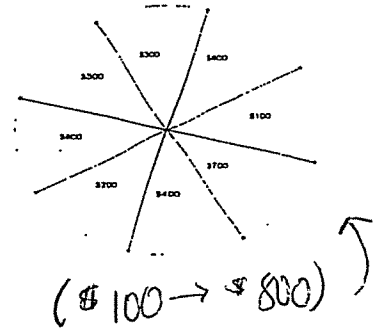
Name _____ Date _____ Period _____

Expected Value Practice Worksheet

1. Find the Expected Value from the table:

Outcome Value	400	-800
Probability	$\frac{4}{7}$	$\frac{3}{7}$

2. What is the expected value of spinning the wheel to the right once?



3. In a board game, players take turns spinning a wheel with 4 spaces and values of \$100, \$300, \$400, \$800. The probability of landing on \$100 is $\frac{4}{9}$. The probability of landing on \$300 is $\frac{2}{9}$. The probability of landing on \$400 is $\frac{2}{9}$. The probability of landing on \$800 is $\frac{1}{9}$. What is the expected value of spinning the wheel once?
4. In question 3, what is the expected value of spinning the wheel 5 times?
5. In a game, 2 players each flip a coin. If both land on heads, player A gets 2 points and player B loses 1 point. If both land on tails, player B gets 2 points and player A loses 1 point. Find the expected value of the game for each player.

6. In basketball, you can earn 3 points for a shot and 1 point for a free throw. If Sam's probability of getting a 3-point shot is $\frac{4}{10}$ and $\frac{8}{10}$ for a free throw, what is his expected value for the game?
7. At a raffle, 25 tickets are sold at \$1 each for 3 prizes of \$100, \$50, and \$10. You buy 1 ticket. What is the expected value of your gain?
8. What is the expected value of rolling a die that has 6 sides?
9. On Jeopardy there are 5 monetary categories- \$100, \$200, \$300, \$400, and \$500. Each of them has an equally likely chance of popping up. What is their expected value?
10. At a fundraiser, 8000 tickets are sold at \$10 each for four prizes: a new car worth \$30,000, a European vacation worth \$9000, a home theater system worth \$4000, and a cash prize of \$1000. You buy 1 ticket. What is the expected value of your gain?
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