Name: _____ Date: _____

Fresh Math

Expected Value - Medium

Find the expected net gain for one play. Subtract the cost to play.

1. It costs $1 to play. You draw one card from a standard deck and win $10 if it is a king. What is the expected net gain?

2. It costs $2 to play. You roll a number cube and win $8 if you roll a 4, 5, or 6. What is the expected net gain?

3. It costs $1 to play. You draw one card from a standard deck and win $10 if it is a heart. What is the expected net gain?

4. It costs $3 to play. You roll a number cube and win $10 if you roll a 5 or 6. What is the expected net gain?

5. It costs $3 to play. You roll a number cube and win $6 if you roll a 5 or 6. What is the expected net gain?

6. It costs $3 to play. You flip two coins and win $6 if both land heads. What is the expected net gain?

Name: _____ Date: _____

Fresh Math

Expected Value - Medium

Find the expected net gain for one play. Subtract the cost to play.

7. It costs $1 to play. You flip two coins and win $6 if both land heads. What is the expected net gain?

8. It costs $1 to play. You flip two coins and win $3 if both land heads. What is the expected net gain?

9. It costs $2 to play. You roll a number cube and win $4 if you roll a 6. What is the expected net gain?

10. It costs $5 to play. You draw one card from a standard deck and win $25 if it is a king. What is the expected net gain?

11. It costs $5 to play. You flip two coins and win $10 if both land heads. What is the expected net gain?

12. It costs $3 to play. You roll a number cube and win $6 if you roll a 6. What is the expected net gain?

Name: _____ Date: _____

Expected Value - Medium

Find the expected net gain for one play. Subtract the cost to play.

13. It costs $3 to play. You draw one card from a standard deck and win $25 if it is a heart. What is the expected net gain?

14. It costs $5 to play. You roll a number cube and win $8 if you roll a 5 or 6. What is the expected net gain?

15. It costs $2 to play. You flip two coins and win $8 if both land heads. What is the expected net gain?

16. It costs $5 to play. You flip two coins and win $8 if both land heads. What is the expected net gain?

Expected Value - Medium - Answer Key

1. It costs $1 to play. You draw one card from a standard deck and win $10 if it is a king. What is the expected net gain?

   -$0.23

2. It costs $2 to play. You roll a number cube and win $8 if you roll a 4, 5, or 6. What is the expected net gain?

   $2.00

3. It costs $1 to play. You draw one card from a standard deck and win $10 if it is a heart. What is the expected net gain?

   $1.50

4. It costs $3 to play. You roll a number cube and win $10 if you roll a 5 or 6. What is the expected net gain?

   $0.33

5. It costs $3 to play. You roll a number cube and win $6 if you roll a 5 or 6. What is the expected net gain?

   -$1.00

6. It costs $3 to play. You flip two coins and win $6 if both land heads. What is the expected net gain?

   -$1.50

Expected Value - Medium - Answer Key

7. It costs $1 to play. You flip two coins and win $6 if both land heads. What is the expected net gain?

   $0.50

8. It costs $1 to play. You flip two coins and win $3 if both land heads. What is the expected net gain?

   -$0.25

9. It costs $2 to play. You roll a number cube and win $4 if you roll a 6. What is the expected net gain?

   -$1.33

10. It costs $5 to play. You draw one card from a standard deck and win $25 if it is a king. What is the expected net gain?

    -$3.08

11. It costs $5 to play. You flip two coins and win $10 if both land heads. What is the expected net gain?

    -$2.50

12. It costs $3 to play. You roll a number cube and win $6 if you roll a 6. What is the expected net gain?

    -$2.00

Expected Value - Medium - Answer Key

13. It costs $3 to play. You draw one card from a standard deck and win $25 if it is a heart. What is the expected net gain?

    $3.25

14. It costs $5 to play. You roll a number cube and win $8 if you roll a 5 or 6. What is the expected net gain?

    -$2.33

15. It costs $2 to play. You flip two coins and win $8 if both land heads. What is the expected net gain?

    $0.00

16. It costs $5 to play. You flip two coins and win $8 if both land heads. What is the expected net gain?

    -$3.00