

Grade 8 Probability Worksheet

Name: _____ Date: _____ Score: _____

Find the probability. Write your answer as a fraction on the line.

- | | | | |
|---|---|---|--|
| 1. Equal chance of winning: 1, 4, 1, 9, 10, 3 points. What is the expected value? (round to 1 decimal)
_____ | 2. Equal chance of winning: 2, 7, 7, 3 points. What is the expected value? (round to 1 decimal)
_____ | 3. Probability of success is $\frac{3}{18}$. In 40 trials, how many successes do you expect?
_____ | 4. Equal chance of winning: 8, 5, 1 points. What is the expected value? (round to 1 decimal)
_____ |
| 5. Equal chance of winning: 7, 1, 6, 5, 6, 8 points. What is the expected value? (round to 1 decimal)
_____ | 6. Equal chance of winning: 10, 1, 7, 1 points. What is the expected value? (round to 1 decimal)
_____ | 7. Equal chance of winning: 1, 8, 3, 2, 10, 6 points. What is the expected value? (round to 1 decimal)
_____ | 8. Probability of success is $\frac{5}{10}$. In 75 trials, how many successes do you expect?
_____ |
| 9. Equal chance of winning: 3, 10, 6, 3 points. What is the expected value? (round to 1 decimal)
_____ | 10. Probability of success is $\frac{10}{20}$. In 49 trials, how many successes do you expect?
_____ | 11. Equal chance of winning: 3, 10, 9 points. What is the expected value? (round to 1 decimal)
_____ | 12. Equal chance of winning: 1, 10, 9 points. What is the expected value? (round to 1 decimal)
_____ |
| 13. Probability of success is $\frac{16}{18}$. In 36 trials, how many successes do you expect?
_____ | 14. Probability of success is $\frac{4}{10}$. In 22 trials, how many successes do you expect?
_____ | 15. Equal chance of winning: 7, 2, 9, 2, 3 points. What is the expected value? (round to 1 decimal)
_____ | 16. Equal chance of winning: 9, 6, 8, 2, 2 points. What is the expected value? (round to 1 decimal)
_____ |

17.

18.

19.

20.

Equal chance of winning: 8, 10, 3, 1, 1 points. What is the expected value? (round to 1 decimal)

Equal chance of winning: 7, 4, 4, 2 points. What is the expected value? (round to 1 decimal)

Probability of success is $\frac{8}{18}$. In 86 trials, how many successes do you expect?

Equal chance of winning: 8, 2, 8, 5 points. What is the expected value? (round to 1 decimal)

21. Probability of success is $\frac{5}{8}$. In 36 trials, how many successes do you expect?

22. Probability of success is $\frac{14}{16}$. In 43 trials, how many successes do you expect?

23. Equal chance of winning: 6, 4, 7, 4, 3 points. What is the expected value? (round to 1 decimal)

24. Equal chance of winning: 5, 6, 7, 10 points. What is the expected value? (round to 1 decimal)

25. Equal chance of winning: 8, 7, 5, 9, 3, 3 points. What is the expected value? (round to 1 decimal)

26. Probability of success is $\frac{10}{13}$. In 20 trials, how many successes do you expect?

27. Equal chance of winning: 8, 8, 4 points. What is the expected value? (round to 1 decimal)

28. Probability of success is $\frac{4}{18}$. In 46 trials, how many successes do you expect?

29. Probability of success is $\frac{10}{15}$. In 66 trials, how many successes do you expect?

30. Equal chance of winning: 4, 6, 7, 1, 6, 3 points. What is the expected value? (round to 1 decimal)

31. Probability of success is $\frac{10}{14}$. In 85 trials, how many successes do you expect?

32. Probability of success is $\frac{5}{16}$. In 26 trials, how many successes do you expect?

33. Probability of success is $\frac{14}{20}$. In 79 trials, how many successes do you expect?

34. Probability of success is $\frac{6}{12}$. In 45 trials, how many successes do you expect?

35. Probability of success is $\frac{6}{15}$. In 10 trials, how many successes do you expect?

36. Equal chance of winning: 3, 6, 2, 6 points. What is the expected value? (round to 1 decimal)

37.

38.

39.

40.

Probability of success is $\frac{8}{16}$. In 82 trials, how many successes do you expect?

Probability of success is $\frac{9}{16}$. In 72 trials, how many successes do you expect?

Equal chance of winning: 5, 1, 2, 2, 8, 5 points. What is the expected value? (round to 1 decimal)

Probability of success is $\frac{9}{13}$. In 46 trials, how many successes do you expect?

ANSWER KEY

Grade 8 Probability Worksheet

1. Equal chance of winning: 1, 4, 1, 9, 10, 3 points. What is the expected value? (round to 1 decimal)
4.7
2. Equal chance of winning: 2, 7, 7, 3 points. What is the expected value? (round to 1 decimal)
4.8
3. Probability of success is $\frac{3}{18}$. In 40 trials, how many successes do you expect?
7
4. Equal chance of winning: 8, 5, 1 points. What is the expected value? (round to 1 decimal)
4.7
5. Equal chance of winning: 7, 1, 6, 5, 6, 8 points. What is the expected value? (round to 1 decimal)
5.5
6. Equal chance of winning: 10, 1, 7, 1 points. What is the expected value? (round to 1 decimal)
4.8
7. Equal chance of winning: 1, 8, 3, 2, 10, 6 points. What is the expected value? (round to 1 decimal)
5
8. Probability of success is $\frac{5}{10}$. In 75 trials, how many successes do you expect?
38
9. Equal chance of winning: 3, 10, 6, 3 points. What is the expected value? (round to 1 decimal)
5.5
10. Probability of success is $\frac{10}{20}$. In 49 trials, how many successes do you expect?
25
11. Equal chance of winning: 3, 10, 9 points. What is the expected value? (round to 1 decimal)
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12. Equal chance of winning: 1, 10, 9 points. What is the expected value? (round to 1 decimal)
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13. Probability of success is $\frac{16}{18}$. In 36 trials, how many successes do you expect?
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14. Probability of success is $\frac{4}{10}$. In 22 trials, how many successes do you expect?
9
15. Equal chance of winning: 7, 2, 9, 2, 3 points. What is the expected value? (round to 1 decimal)
4.6
16. Equal chance of winning: 9, 6, 8, 2, 2 points. What is the expected value? (round to 1 decimal)
5.4
17. Equal chance of winning: 8, 10, 3,
18. Equal chance of winning: 7, 4, 4,
19. Probability of success is $\frac{8}{18}$.
20. Equal chance of winning: 8, 2, 8,

1, 1 points. What is the expected value? (round to 1 decimal)

4.6

2 points. What is the expected value? (round to 1 decimal)

4.3

In 86 trials, how many successes do you expect?

38

5 points. What is the expected value? (round to 1 decimal)

5.8

21. Probability of success is $\frac{5}{8}$. In 36 trials, how many successes do you expect?

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27. Equal chance of winning: 8, 8, 4 points. What is the expected value? (round to 1 decimal)

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28. Probability of success is $\frac{4}{18}$. In 46 trials, how many successes do you expect?

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29. Probability of success is $\frac{10}{15}$. In 66 trials, how many successes do you expect?

44

30. Equal chance of winning: 4, 6, 7, 1, 6, 3 points. What is the expected value? (round to 1 decimal)

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31. Probability of success is $\frac{10}{14}$. In 85 trials, how many successes do you expect?

61

32. Probability of success is $\frac{5}{16}$. In 26 trials, how many successes do you expect?

8

33. Probability of success is $\frac{14}{20}$. In 79 trials, how many successes do you expect?

55

34. Probability of success is $\frac{6}{12}$. In 45 trials, how many successes do you expect?

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35. Probability of success is $\frac{6}{15}$. In 10 trials, how many successes do you expect?

4

36. Equal chance of winning: 3, 6, 2, 6 points. What is the expected value? (round to 1 decimal)

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37. Probability of success is $\frac{8}{16}$.

38. Probability of success is $\frac{9}{16}$.

39. Equal chance of winning: 5, 1,

40. Probability of success is $\frac{9}{13}$.

In 82 trials, how many successes do you expect?

41

In 72 trials, how many successes do you expect?

41

2, 2, 8, 5 points. What is the expected value? (round to 1 decimal)

3.8

In 46 trials, how many successes do you expect?

32