

Math Sheet

Name _____ Score _____ / 10 Teacher _____ Date _____

Probability with Numbers

Use the stated equally likely outcomes. Give each probability as a simplified fraction.

1. Choose one integer at random from 1 through 25.

What is the probability of value < 9 ?

6. Choose one integer at random from 1 through 10.

What is the probability of value: odd or value is a multiple of 2?

2. Choose one integer at random from 1 through 10.

What is the probability of ones digit: value = 5?

7. Choose one integer at random from 1 through 50.

What is the probability of $2 \leq \text{value} \leq 38$?

3. Choose one integer at random from 1 through 10.

What is the probability of value: odd?

8. Choose one integer at random from 1 through 25.

What is the probability of value divides 25 and value: even?

4. Choose one integer at random from 1 through 50.

What is the probability of value is a multiple of 5?

9. Choose one integer at random from 1 through 50.

What is the probability of not (value is a multiple of 5 or value is a multiple of 2)?

5. Choose one integer at random from 1 through 10.

What is the probability of value divides 10?

10. Choose one integer at random from 1 through 25.

What is the probability of value: prime?

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Probability with Numbers

Answer key

Use the stated equally likely outcomes. Give each probability as a simplified fraction.

1. Choose one integer at random from 1 through 25.

What is the probability of value < 9?

$P = 8/25$. Matching outcomes: 1, 2, 3, 4, 5, 6, 7, 8. 8 favorable outcomes out of 25; $8/25 = 8/25$.

6. Choose one integer at random from 1 through 10.

What is the probability of value: odd or value is a multiple of 2?

$P = 1$. Matching outcomes: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10. 10 favorable outcomes out of 10; $10/10 = 1$.

2. Choose one integer at random from 1 through 10.

What is the probability of ones digit: value = 5?

$P = 1/10$. Matching outcomes: 5. 1 favorable outcomes out of 10; $1/10 = 1/10$.

7. Choose one integer at random from 1 through 50.

What is the probability of $2 \leq \text{value} \leq 38$?

$P = 37/50$. Matching outcomes: 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38. 37 favorable outcomes out of 50; $37/50 = 37/50$.

3. Choose one integer at random from 1 through 10.

What is the probability of value: odd?

$P = 1/2$. Matching outcomes: 1, 3, 5, 7, 9. 5 favorable outcomes out of 10; $5/10 = 1/2$.

8. Choose one integer at random from 1 through 25.

What is the probability of value divides 25 and value: even?

$P = 0$. Matching outcomes: . 0 favorable outcomes out of 25; $0/25 = 0$.

4. Choose one integer at random from 1 through 50.

What is the probability of value is a multiple of 5?

$P = 1/5$. Matching outcomes: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50. 10 favorable outcomes out of 50; $10/50 = 1/5$.

9. Choose one integer at random from 1 through 50.

What is the probability of not (value is a multiple of 5 or value is a multiple of 2)?

$P = 2/5$. Matching outcomes: 1, 3, 7, 9, 11, 13, 17, 19, 21, 23, 27, 29, 31, 33, 37, 39, 41, 43, 47, 49. 20 favorable outcomes out of 50; $20/50 = 2/5$.

5. Choose one integer at random from 1 through 10.

What is the probability of value divides 10?

$P = 2/5$. Matching outcomes: 1, 2, 5, 10. 4 favorable outcomes out of 10; $4/10 = 2/5$.

10. Choose one integer at random from 1 through 25.

What is the probability of value: prime?

$P = 9/25$. Matching outcomes: 2, 3, 5, 7, 11, 13, 17, 19, 23. 9 favorable outcomes out of 25; $9/25 = 9/25$.