

1. There are 6 black face cards (3 Jacks, 3 Queens, 3 Kings of Spades and Clubs).

$$\text{Probability} = \frac{6}{52} = \frac{3}{26}$$

Answer:

2. Numbers satisfying $|x| < 2$ are $-1, 0, 1$.

$$\text{Probability} = \frac{3}{9} = \frac{1}{3}$$

Answer:

3.

$$\text{Probability} = 1 - 0.05 = 0.95$$

Answer:

4. Total number of cubes is $3 + 3 + 2 = 8$. Number of non-orange cubes is $3 + 2 = 5$.

$$\text{Probability} = \frac{5}{8}$$

Answer:

5.

$$\text{Probability} = \frac{58}{200} = 0.29$$

Answer:

6. Months beginning with 'J' are January, June, and July.

$$\text{Probability} = \frac{3}{12} = \frac{1}{4}$$

Answer:

7. Prime numbers between 20 and 40 are 23, 29, 31, 37.

$$\text{Probability} = \frac{4}{21}$$

Answer:

8. Factors of 6 on a die are 1, 2, 3, 6.

$$\text{Probability} = \frac{4}{6} = \frac{2}{3}$$

Answer:

9. The word 'CHANCE' has 6 letters, with consonants: C, H, N, C.

$$\text{Probability} = \frac{4}{6} = \frac{2}{3}$$

Answer:

10. There are 2 red queens (Queen of Hearts and Queen of Diamonds).

$$\text{Probability} = \frac{2}{52} = \frac{1}{26}$$

Answer:

11. Probability of drawing a red marble is $\frac{4}{10} = 0.4$ and a blue marble is $\frac{6}{10} = 0.6$.

Probability of drawing a blue marble is higher.

Answer:

12. Multiples of 11 from 1 to 100 are 11, 22, 33, 44, 55, 66, 77, 88, 99.

$$\text{Probability} = \frac{9}{100}$$

Answer:

13. The probability of a sure event is 100%. **Answer:**

14. Favorable outcomes: (1,1), (2,2), (3,3), (4,4), (5,5), (6,6).

$$\text{Probability} = \frac{6}{36} = \frac{1}{6}$$

Answer:

15. Multiples of 3: 3, 6, 9. Multiples of 4: 4, 8. Common multiple: 12 (not in range). Total unique multiples: 5.

$$\text{Probability} = \frac{5}{10} = \frac{1}{2}$$

Answer: