

Probability questions with answers

15 exam-shaped questions with full worked solutions.

For IBPS · SBI · SSC · Railway quant.

Free, share it forward. Every question in this set was generated and verified by the ComputePrep engine — the same one behind the free daily timed drill at **computeprep.com**.

The questions

Work them on paper first. Full solutions start after question 15 — the numbering matches.

QUESTION 1

What is the probability that it is red?

A bag contains 6 red and 4 blue balls. One ball is drawn at random.

- A. $\frac{4}{5}$
 - B. $\frac{2}{5}$
 - C. $\frac{1}{10}$
 - D. $\frac{3}{5}$
 - E. $\frac{1}{2}$
-

QUESTION 2

What is the probability that it is red?

A bag contains 7 red and 2 blue balls. One ball is drawn at random.

- A. $\frac{7}{10}$
 - B. $\frac{2}{9}$
 - C. $\frac{1}{9}$
 - D. $\frac{8}{9}$
 - E. $\frac{7}{9}$
-

QUESTION 3

What is the probability of drawing a face card (J, Q or K)?

One card is drawn at random from a well-shuffled pack of 52 cards.

- A. $\frac{6}{13}$
 - B. $\frac{3}{13}$
 - C. $\frac{1}{4}$
 - D. $\frac{4}{13}$
 - E. $\frac{1}{52}$
-

QUESTION 4

What is the probability of drawing a red card?

One card is drawn at random from a well-shuffled pack of 52 cards.

- A. $\frac{1}{3}$
 - B. $\frac{1}{52}$
 - C. $\frac{1}{4}$
 - D. $\frac{1}{2}$
 - E. $\frac{27}{52}$
-

QUESTION 5

What is the probability that the sum is exactly 5?

Two fair dice are rolled together.

- A. $1/3$
 - B. $1/9$
 - C. $5/36$
 - D. $2/9$
 - E. $1/11$
-

QUESTION 6

What is the probability that both balls are red?

A bag contains 5 red and 4 blue balls. Two balls are drawn at random, one after the other, without replacement.

- A. $1/2$
 - B. $5/9$
 - C. $25/81$
 - D. $1/3$
 - E. $5/18$
-

QUESTION 7

What is the probability that it is red?

A bag contains 6 red and 6 blue balls. One ball is drawn at random.

- A. $1/5$
 - B. $1/3$
 - C. $1/4$
 - D. $1/2$
 - E. $1/12$
-

QUESTION 8

What is the probability that it is NOT defective?

A box contains 3 defective and 5 good bulbs. One bulb is picked at random.

- A. $3/8$
 - B. $3/4$
 - C. $5/8$
 - D. $1/8$
 - E. $3/5$
-

QUESTION 9

What is the probability that the sum is exactly 8?

Two fair dice are rolled together.

- A. $2/9$
 - B. $1/11$
 - C. $5/12$
 - D. $1/6$
 - E. $5/36$
-

QUESTION 10**What is the probability of drawing a heart?**

One card is drawn at random from a well-shuffled pack of 52 cards.

- A. $1/4$
 - B. $1/5$
 - C. $1/2$
 - D. $7/26$
 - E. $1/52$
-

QUESTION 11**What is the probability of drawing a red card?**

One card is drawn at random from a well-shuffled pack of 52 cards.

- A. $1/2$
 - B. $27/52$
 - C. $1/3$
 - D. $1/52$
 - E. $1/4$
-

QUESTION 12**What is the probability of drawing a face card (J, Q or K)?**

One card is drawn at random from a well-shuffled pack of 52 cards.

- A. $3/13$
 - B. $1/4$
 - C. $1/52$
 - D. $6/13$
 - E. $4/13$
-

QUESTION 13**What is the probability that it is NOT defective?**

A box contains 5 defective and 4 good bulbs. One bulb is picked at random.

- A. $4/9$
 - B. $4/5$
 - C. $1/9$
 - D. $2/5$
 - E. $5/9$
-

QUESTION 14**What is the probability that it is NOT defective?**

A box contains 2 defective and 3 good bulbs. One bulb is picked at random.

- A. $3/5$
 - B. $1/5$
 - C. $2/3$
 - D. $2/5$
 - E. $4/5$
-

QUESTION 15

What is the probability that it is NOT defective?

A box contains 5 defective and 3 good bulbs. One bulb is picked at random.

- A. $1/8$
 - B. $5/8$
 - C. $1/2$
 - D. $3/8$
 - E. $3/5$
-

Answers and worked solutions

Each walkthrough is the engine's own elimination order, step for step — not a reconstruction written after the fact.

SOLUTION 1

Answer: **3/5**

1. Total balls = 10; favourable (red) = 6.
 2. $P(\text{red}) = \text{favourable} \div \text{total} = 6/10 = 3/5$.
 3. Answer: 3/5.
-

SOLUTION 2

Answer: **7/9**

1. Total balls = 9; favourable (red) = 7.
 2. $P(\text{red}) = \text{favourable} \div \text{total} = 7/9 = 7/9$.
 3. Answer: 7/9.
-

SOLUTION 3

Answer: **3/13**

1. Favourable cards = 12 of the 52.
 2. $P = 12/52 = 3/13$.
 3. Answer: 3/13.
-

SOLUTION 4

Answer: **1/2**

1. Favourable cards = 26 of the 52.
 2. $P = 26/52 = 1/2$.
 3. Answer: 1/2.
-

SOLUTION 5

Answer: **1/9**

1. There are $6 \times 6 = 36$ equally likely ordered outcomes — sums are NOT equally likely.
 2. Sum 5 arises in 4 of them, so $P = 4/36 = 1/9$.
 3. Answer: 1/9.
-

SOLUTION 6

Answer: **5/18**

1. First draw: $P(\text{red}) = 5/9$. The ball is NOT put back.
 2. Second draw: 4 reds remain among 8 balls — multiply: $5/9 \times 4/8$.
 3. $P(\text{both red}) = 20/72 = 5/18$.
 4. Answer: 5/18.
-

SOLUTION 7

Answer: **1/2**

1. Total balls = 12; favourable (red) = 6.
2. $P(\text{red}) = \text{favourable} \div \text{total} = 6/12 = 1/2$.

3. Answer: 1/2.
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SOLUTION 8

Answer: **5/8**

1. $P(\text{not defective}) = 1 - P(\text{defective}) = 1 - 3/8$.
 2. That is the 5 good bulbs out of 8: $5/8$.
 3. Answer: $5/8$.
-

SOLUTION 9

Answer: **5/36**

1. There are $6 \times 6 = 36$ equally likely ordered outcomes — sums are NOT equally likely.
 2. Sum 8 arises in 5 of them, so $P = 5/36 = 5/36$.
 3. Answer: $5/36$.
-

SOLUTION 10

Answer: **1/4**

1. Favourable cards = 13 of the 52.
 2. $P = 13/52 = 1/4$.
 3. Answer: $1/4$.
-

SOLUTION 11

Answer: **1/2**

1. Favourable cards = 26 of the 52.
 2. $P = 26/52 = 1/2$.
 3. Answer: $1/2$.
-

SOLUTION 12

Answer: **3/13**

1. Favourable cards = 12 of the 52.
 2. $P = 12/52 = 3/13$.
 3. Answer: $3/13$.
-

SOLUTION 13

Answer: **4/9**

1. $P(\text{not defective}) = 1 - P(\text{defective}) = 1 - 5/9$.
 2. That is the 4 good bulbs out of 9: $4/9$.
 3. Answer: $4/9$.
-

SOLUTION 14

Answer: **3/5**

1. $P(\text{not defective}) = 1 - P(\text{defective}) = 1 - 2/5$.
 2. That is the 3 good bulbs out of 5: $3/5$.
 3. Answer: $3/5$.
-

SOLUTION 15

Answer: **3/8**

1. $P(\text{not defective}) = 1 - P(\text{defective}) = 1 - 5/8$.
2. That is the 3 good bulbs out of 8: $3/8$.
3. Answer: $3/8$.

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