

CLASS 10 · HOTS · OLYMPIAD PREPARATION · DPP SHEET

Chapter 14: HOTS: Probability (Class 10)

Daily practice problems: 8 questions with an answer key

Try every question on your own first. The answer key is on the last page.

1. Two dice are thrown together. Find the probability that the product of the numbers is 12.
2. A card is drawn from a pack of 52 cards. Find the probability that it is a face card or an ace.
3. A bag has 4 white balls and some black balls. The probability of a black ball is three times that of a white ball. Find the number of black balls.
4. Three coins are tossed together. Find the probability of getting exactly two heads.
5. A box contains cards numbered 1 to 30. A card is drawn at random. Find the probability that the number is a multiple of 4 or of 6.
6. Two dice are thrown together. Find the probability that the sum is at least 10.
7. A die is thrown once. Find the probability of getting a number which is a perfect square.
8. The probability that it rains tomorrow is 0.35. Find the probability that it does not rain.

Answer Key

1. $\frac{4}{36} = \frac{1}{9}$ (the outcomes are (2, 6), (6, 2), (3, 4) and (4, 3)).
2. $\frac{16}{52} = \frac{4}{13}$.
3. 12.
4. $\frac{3}{8}$.
5. $\frac{10}{30} = \frac{1}{3}$ (7 multiples of 4, 5 multiples of 6, and 2 of both: 12 and 24, so $7 + 5 - 2 = 10$).
6. $\frac{6}{36} = \frac{1}{6}$.
7. $\frac{2}{6} = \frac{1}{3}$ (the numbers are 1 and 4).
8. 0.65.

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