

Questions

Task 1:

What is the probability of getting a 2 or a 5 when a die is rolled?

Answer1:

Probability of getting 2 = $1/6$

Probability of getting 5 = $1/6$

Probability of getting 2 or 5 = $1/6 + 1/6 = 2/6 = \mathbf{1/3}$

Task 2:

Consider a pack contains 4 blue, 2 red and 3 black pens. If a pen is drawn at random from the pack, replaced and the process repeated 2 more times, what is the probability of drawing 2 blue pens and 1 black pen?

Answer2:

Probability of drawing 1 blue pen = $4/9$

Probability of drawing another blue pen = $3/8$

Probability of drawing 1 black pen = $3/7$

Probability of drawing 2 blue pens and 1 black pen = $4/9 * 3/8 * 3/7 = \mathbf{1/14}$

Task 3:

When two dice are rolled, find the probability of getting a greater number on the first die than the one on the second, given that the sum should equal 8.

Answer3:

Scenarios when greater number on first die and sum equal to 8 = (5, 3), (6, 2)

Total scenarios = 36

Probability of the above scenario = $2/36 = \mathbf{1/18}$