1. S = {1, 2, 3, 4, ...., 19, 20}

Let E = event of getting a multiple of 3 or 5

= {3, 6 , 9, 12, 15, 18, 5, 10, 20}

∴ P(E) = n(E)/n(S) = 9/20

1. Total number of balls = 30

No. of boundaries the batsman hit = 6

No. of balls without boundaries = 30 - 6 = 24

The probability when there is no boundary = 24/30 = ⅘

1. According to the given statement P(G) + P(H) = 1. So, P(G) = 1- P(H)
2. Sample space S = {TTT, TTH, THT, HTT, THH, HTH, HHT, HHH}

Let E is the event of getting two heads together

Then E = {THH, HHT, HHH} P(E) = n(E) / n(S) = 3/8.

1. Probability of winning the first prize of the girl = 8/100

Total number of tickets sold = 6000

No. of tickets girl purchased = 8/100 \* 6000 = 48

1. Can’t solve
2. Total number of socks = 3 + 5 + 4 = 12 socks

Probability of selecting first blue sock = 3/12 or 1/4

Probability of selecting second blue sock = 2/11

1. Total number of ball pens = 144

No. of defective pens = 20

No. of good pens = 124

The probability of buying a good pen is = 124/144 = 31/36.

1. We have a set of 100 natural numbers.

So the probability that the selected number is a perfect cube is = 4/100 = 1/25.

1. Didn’t understood the question
2. A: Number less than 2

B: Number more than 4

S={1,2,3,4,5,6}

A={1}

B={5,6}

Since A and B are mutually exclusive,

P(A or B)=P(AUB)=P(A)+P(B)=1/6 +2/6= 3/6 =½

1. If A and B are mutually exclusive events, then P(A ∩ B) = 0,

Thus, as per the addition rule,

P(AUB) = P(A) + P(B) P(AUB) = 0.6 +0.2 = 0.8 =8/10

1. P(X) = n(X) ∕ n(S) = P (A and B ) = 4/30 = 2/15

P(A and B) =4/30 = 2/15

1. P(X) = n(X) ∕ n(S)

Let's assume S={1,2,3,4,5,6}

Number of favorable outcomes = 6

P(S)= 6/6 = 1