GCSE HIGHER · REVISION MAT 2

Sample spaces

1 A spinner numbered 1 to 4 is spun and a coin is flipped.

How many outcomes are there?

2 Two spinners numbered 1 to 4 are spun and the scores added.

Find P(total 5).

+	1	2	3	4
1	2	3	4	5
2	3	4	5	6
3	4	5	6	7
4	5	6	7	8

3 Explain why (H, T) and (T, H) are listed as different outcomes.

4 Two dice are rolled.

Find P(both scores are even).

+	1	2	3	4	5	6
1						
2						
3						
4						
5						
6						

5 Show that rolling a dice and flipping a coin gives 12 outcomes.

6 Two dice are rolled.

Which difference is most likely? Find its probability.

–	1	2	3	4	5	6
1	0	1	2	3	4	5
2	1	0	1	2	3	4
3	2	1	0	1	2	3
4	3	2	1	0	1	2
5	4	3	2	1	0	1
6	5	4	3	2	1	0

7 Show that

P(the total is prime) = $\frac{15}{36}$.

+	1	2	3	4	5	6
1	2	3	4	5	6	7
2	3	4	5	6	7	8
3	4	5	6	7	8	9
4	5	6	7	8	9	10
5	6	7	8	9	10	11
6	7	8	9	10	11	12

8 Two spinners numbered 1 to 5 are spun and the scores multiplied.

Find P(product > 10).

×	1	2	3	4	5
1	1	2	3	4	5
2	2	4	6	8	10
3	3	6	9	12	15
4	4	8	12	16	20
5	5	10	15	20	25

Mr&Mrs MATHS

ANSWERS · REVISION MAT 2

Sample spaces

1 8

2 $\frac{4}{16} = \frac{1}{4}$

3 The first and second coins are different, so these are two separate results.

4 3 × 3 = 9 outcomes

$\frac{9}{36} = \frac{1}{4}$

5 6 × 2 = 12

6 Difference 1 appears 10 times

1, with probability $\frac{5}{18}$

7 2: 1, 3: 2, 5: 4, 7: 6, 11: 2

15 outcomes

8 12, 15, 12, 16, 20, 15, 20, 25

$\frac{8}{25}$

Mr&Mrs MATHS