GCSE FOUNDATION · REVISION MAT 2

Sample space diagrams

1 Two spinners are used and the product is recorded.

Complete the sample space diagram.

×	1	2	3	4	5	6
1	1	2	3	4	5	6
2		4	6		10	12
3	3	6		12	15	
4	4		12	16		24

2 Two spinners are used and the product is recorded.

×	1	2	3	4	5	6
1	1	2	3	4	5	6
2	2	4	6	8	10	12
3	3	6	9	12	15	18
4	4	8	12	16	20	24

Find the probability that the product is 6.

3 Two spinners are used and the product is recorded.

×	1	2	3	4	5	6
1	1	2	3	4	5	6
2	2	4	6	8	10	12
3	3	6	9	12	15	18
4	4	8	12	16	20	24

Explain why a product of 6 is more likely than a product of 1.

4 Two spinners are used and the product is recorded.

×	1	2	3	4	5	6
1	1	2	3	4	5	6
2	2	4	6	8	10	12
3	3	6	9	12	15	18
4	4	8	12	16	20	24

Show that P(product is even) = $\frac{3}{4}$

5 Spinner A has numbers 2, 4, 6. Spinner B has numbers 1, 3, 5.
Ella wins if the total is more than 7.

Work out the probability that Ella wins.

6 A coin is flipped and a 6-sided dice is rolled.

(a) How many outcomes are there?

(b) Find P(tails and a number greater than 4).

Mr&Mrs MATHS

ANSWERS · REVISION MAT 2

Sample space diagrams

1

×	1	2	3	4	5	6
1	1	2	3	4	5	6
2	**2**	4	6	**8**	10	12
3	3	6	**9**	12	15	**18**
4	4	**8**	12	16	**20**	24

2 3 out of 24

$\frac{\mathbf{1}}{\mathbf{8}}$

3 6 appears **3** times in the diagram, 1 appears only **1** time.

4 18 out of 24 outcomes

$\frac{18}{24} = \frac{\mathbf{3}}{\mathbf{4}}$ ✓

5

+	1	3	5
2	3	5	7
4	5	7	9
6	7	9	11

3 out of 9: $\frac{\mathbf{1}}{\mathbf{3}}$

6 (a) 2 × 6 = **12**

(b) 2 out of 12: $\frac{\mathbf{1}}{\mathbf{6}}$

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