**KS3 2D Sample Space Homework**

For the following, draw the appropriate sample space (as a table) in your books, and hence calculate the required probabilities.

1. After throwing two dice, the difference between the two numbers being:
   1. 0
   2. More than 3.
   3. 4
2. After spinning two spinners, one with sides “A, B, C, D” and the other with sides “A, B”:
   1. An ‘A’ and a ‘B’ are seen.
   2. An ‘A’ or a ‘B’ are seen.
3. After throwing a coin and a die:
   1. Seeing a tails and a prime number.
   2. Seeing a heads or a square number.
4. After throwing two dice, the product of the two numbers being:
   1. equal to 12.
   2. prime.
   3. square.
   4. triangular.
5. After throwing two die, the square of the sum of the two numbers being greater than 60.
6. [**Optional extension question**. You won’t be able to draw a sample space for this] After throwing two dice each with 20 sides, the probability that the sum of the squares of the two numbers being square.

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1. After throwing two dice, the difference between the two numbers being:
   1. 0
   2. More than 3.
   3. 4
2. After spinning two spinners, one with sides “A, B, C, D” and the other with sides “A, B”:
   1. A ‘D’ and a ‘C’ are seen.
   2. A ‘D’ or a ‘C’ are seen.
3. After throwing a coin and a die:
   1. Seeing a tails and a prime number.
   2. Seeing a heads or a square number.
4. After throwing two dice, the product of the two numbers being:
   1. equal to 12.
   2. prime.
   3. square.
   4. triangular.
5. After throwing two die, the square of the sum of the two numbers being greater than 60.
6. [**Optional extension question**. You won’t be able to draw a sample space for this] After throwing two dice each with 20 sides, the probability that the sum of the squares of the two numbers being square.