**probability**

**B**

**Pythagroas**

**GRADE BUSTER**

*Your ‘5 a day’ mathematical workout*

1. Place the probabilities of the following events in order from least likely to most likely:

**Getting a H when tossing a coin and picking a Heart from a pack of cards**

**Getting a score of 6 when rolling a dice and picking a Heart from a pack of cards**

**Getting a double 5 when rolling 2 dice**

**Getting a score less than 5 when adding together the scores of 2 dice**

**Getting a score of 6 when rolling a dice and picking a King from a pack of cards**

2. The probability that Ian will get a grade C or higher in his Maths GCSE is 0.67. What is the probability that Ian will get a grade U, G, F, E or D?

3. i) Find 3 examples of i) independent events and ii) mutually exclusive events.

$$\frac{5}{8}$$

R

4. i) Explain what is wrong with the following solution:

$$\frac{3}{8}$$

R

A bag contains 5 red balls and 3 yellow balls.

$$\frac{5}{8}$$

Y

A ball is taken from the bag and then replaced.

A second ball is then taken from the bag.

$$\frac{3}{8}$$

$$\frac{5}{8}$$

R

Using a tree diagram, find the probability of:

i) Both balls being yellow

$$\frac{3}{8}$$

Y

ii) At least one ball being red

Y

$$\frac{5}{8}$$

$$\frac{10}{16}$$

$$\frac{5}{8}$$

ii) Find the correct solution i) p(YY) = + =

 ii) p(RY or YR) = $\left(\frac{5}{8}×\frac{3}{8}\right)+(\frac{3}{8}×\frac{5}{8})$

WIN A CAR !!!!

Get 6 sixes when you roll a dice six times and you’ll win a car!

 = $\frac{15}{64}+\frac{15}{64}= \frac{30}{64}=\frac{15}{32}$

5)

 What is the probability of winning a car?

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| Qu |  | ☺ | ☹ |
| 1, 3i & 5 | I can find the probabilities of independent events |  |  |
| 2 & 3ii | I can find the probabilities of mutually exclusive events |  |  |
| 4 | I can use tree diagrams to solve probability events |  |  |

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| Top tips I must remember for the exam: |
| ☺☺☺ |
| Types of questions I need to practise more: |
| ☺☺☺ |