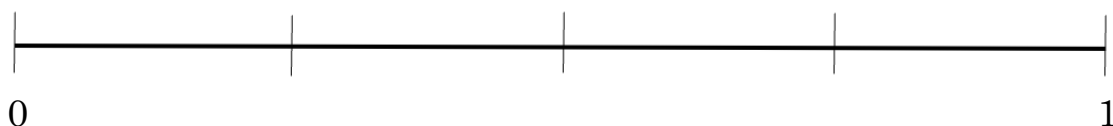




## Probability Exam Practice

Q1. David chooses a number at random between 1 and 12 inclusive.  
Mark on the probability scale the events A, B, C and D where:

- A is choosing an odd number      B is choosing a multiple of 15  
C is choosing a prime number greater than 3  
D choosing a number less than 10

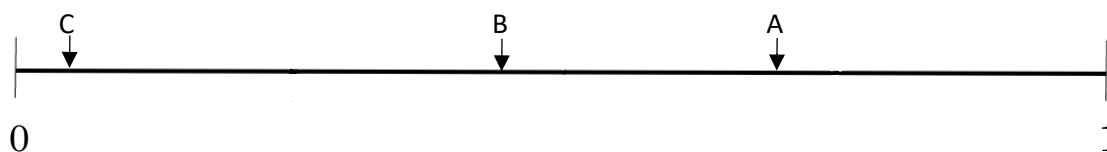


(4 marks)

Q2. A fair dice, numbered 1 to 6 in the usual way, is thrown. Work out the probability that a square number is rolled.

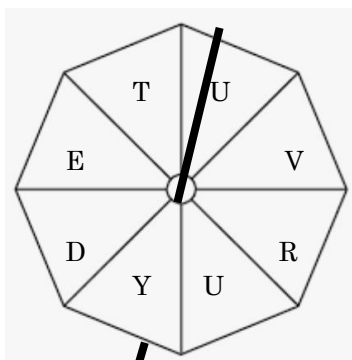
(2 marks)

Q3. Estimate the probability of each of the events A, B and C from the probability scale below:



(3 marks)

Q4. In the English language, a vowel is any of the letters A, E, I, O, or U.



Work out the probability that the spinner lands on:

- (i) an E
- (ii) any letter which is not a vowel
- (iii) the letter A

(3 marks)

Q5. The weather news on channel 1 states the probability of it snowing the next day is 35%, whereas the weather news on channel 2 states that the probability is  $\frac{2}{5}$ . Which channel thinks it is the least likely to snow?  
You must show your reasoning.

(2 marks)



Q6. Here is a list of numbers:

2, 4, 5, 8, 4, 3, 0, 10, 15, 18, 7, 14

A number is chosen at a random from the list, find the probability that it is:

- (a) an even number (1 mark)
- (b) a number less than 4 (1 mark)
- (c) a prime number (1 mark)

Q7. A box contains 18 crayons. 6 are black, 3 are red, the rest are green. Work out the probability that a randomly selected crayon is:

- a) green (1 mark)
- b) not black (1 mark)

Q8. At a Christmas raffle, a total of 200 tickets are sold some of which will win the buyer a prize. The prizes on offer are three £25 prizes, two £50 prizes and one £100 prize. What is the probability that:

- a) the buyer wins a £50 prize? (1 mark)
- b) the buyer does not win anything? (1 mark)

Q9. There are red, green, blue and purple counters in a bag. A counter is picked at random from the bag. There are twice as many purple counters as red counters in the bag.

a) Complete the probability table shown below:

Colour	Red	Green	Blue	Purple
Probability		0.1	0.3	

- (1 mark)
- b) Work out the probability of not choosing a blue counter. (1 mark)
- c) Rob counts all the counters in the bag and claims that there are 20 counters. Explain why this cannot be true. (1 mark)