

M6 = 9 days to go!

1 A normal six sided dice is rolled 240 times.

It lands on six a total of 20 times.

Do you think the dice is fair?

Give a reason for your answer.

Answer _____ because _____ [2]

6 (a) The probability that a bus is on time is 0.7

Mark with an X on the scale, the probability that the bus is **not** on time.



[1]

(b) A fair dice is thrown once.

Explain why the probability of getting a prime number is greater than the probability of getting a factor of 5

[3]

12 There are 30 passengers in a train carriage.

The probability that a passenger in the train carriage is male is $\frac{2}{5}$

At the next station 5 people get off and no-one gets on.

The probability that a passenger in the train carriage is male is still $\frac{2}{5}$

How many females are still on the train?

Answer _____ [3]

The equation

$$x^3 + 2x = 50$$

has a solution between 3 and 4.

Use trial and improvement to find this solution.
Give your answer correct to 1 decimal place.
You must show all your working.

x =
(4)