

**FOUNDATION TIER
MINI PRACTICE EXAM 12**



**CALCULATOR ALLOWED
20 MINUTES ALLOWED**

1.
Erica is providing snacks for a group of 30 people.
Each person needs a sausage roll and a muffin.
Sausage rolls are sold in packs of 6 that cost £1.40.
Muffins are sold in packs of 4 that cost £1.60.

How much will it cost Erica to feed the group?

(4)

2.
(a) A crate exerts a force of 1,800 Newtons on an area of 1,200 cm².
Find the pressure exerted, in N/cm².

(2)

(b) A block of wood has a density of 1.35 g/cm³ and a volume of 5,000 cm³.
Find the mass of the block of wood, in grams.

(2)

3.
A solution to the equation $4x^3 - 7x = 10$ lies between 1 and 2.
Use trial and improvement to find this solution to 1 decimal place.

(3)

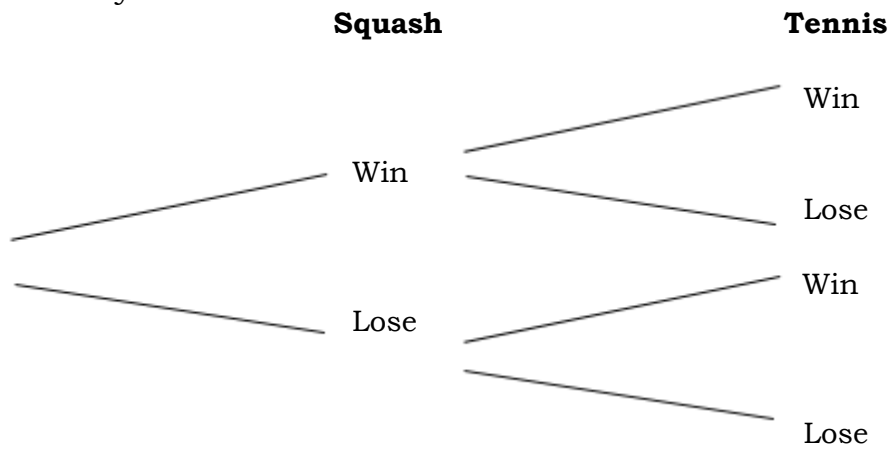
4.

Francis is going to play his friend at squash and tennis.

The probability that Francis wins at squash is 0.56.

The probability that Francis wins at tennis is 0.41.

(a) Complete the probability tree.



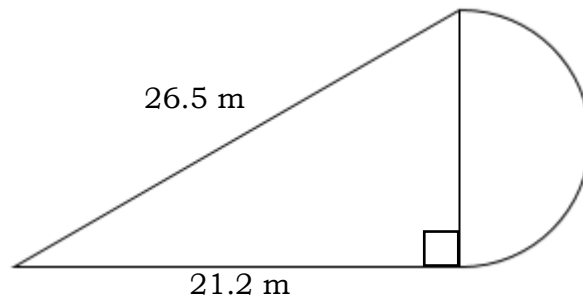
(2)

(b) Work out the probability that Francis wins in only one of the games.

(2)

5.

The shape below is formed of a right-angled triangle and a semicircle.



Find the perimeter of the shape, to 1 decimal place.

(5)