

FOUNDATION TIER
MINI PRACTICE EXAM 4



metatutor

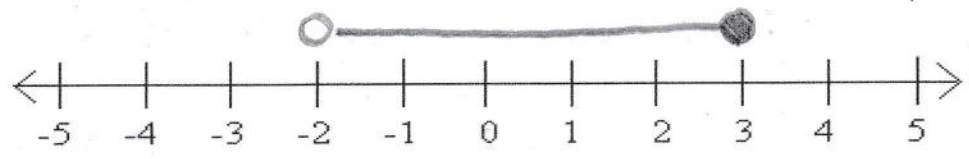
NON-CALCULATOR
20 MINUTES ALLOWED

1.
Put the following numbers in order, smallest to largest:

3.55×10^4	3.53×10^3	354×10^2	35.9×10^3
35500	3530	35400	35900

$3.53 \times 10^3, 354 \times 10^2, 3.55 \times 10^4, 35.9 \times 10^3$ (2)

2.
(a) Mark the inequality $-2 < x \leq 3$ on the number line below.



(b) Write down all integers that satisfy the inequality $-8 \leq x < -3$

$-8, -7, -6, -5, -4$ (1)

3.
Dean went into town yesterday.
He spent $\frac{3}{5}$ of the time at the cinema.
He spent $\frac{1}{6}$ of the time in a coffee shop.
He spent the rest of the time walking around.

(a) What fraction of the time did Dean spend walking around?

$\frac{3}{5} + \frac{1}{6} = \frac{18}{30} + \frac{5}{30} = \frac{23}{30}$
 $1 - \frac{23}{30} = \frac{7}{30}$ (3)

(b) Dean was in town for 4 hours yesterday. How many minutes did he spend in the coffee shop?

4 hrs = 240 minutes
 $240 \times \frac{1}{6} = \underline{40 \text{ minutes}}$ (2)

4.

Graham and Gregory are going to share £240 in the ratio 5:3.

Work out how much more money Graham receives than Gregory.

$$5 + 3 = 8$$

$$240 \div 8 = 30$$

$$\text{Graham} = 150$$

$$\text{Gregory} = 90$$

£60

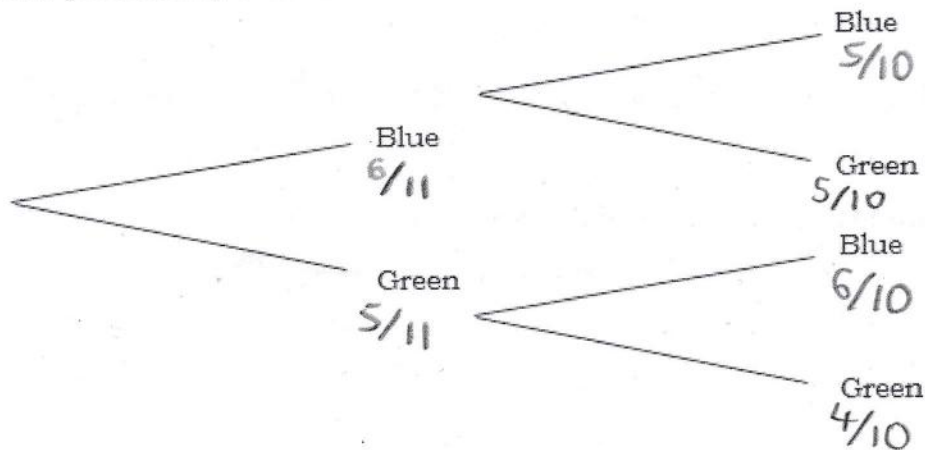
(2)

5.

A bag contains 6 blue marbles and 5 green marbles.

Neil is going to pick two marbles at random from the bag, without replacement.

(a) Complete the probability tree below.



(4)

(b) Use your probability tree to work out the probability of picking two blue marbles from the bag.

$$\frac{6}{11} \times \frac{5}{10} = \frac{30}{110} = \frac{3}{11}$$

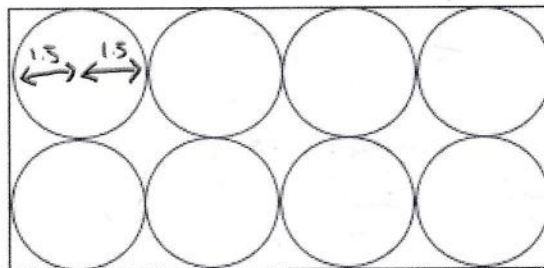
(2)

6.

Eight identical circles are tightly packed inside a rectangle, pictured below.

The circles each have a radius of 1.5 cm.

Work out the area of the rectangle.



$$\text{Width} = 1.5 \times 8 = 12$$

$$\text{Height} = 1.5 \times 4 = 6$$

$$\text{Area} = 12 \times 6 = \underline{72 \text{ cm}^2}$$

(3)