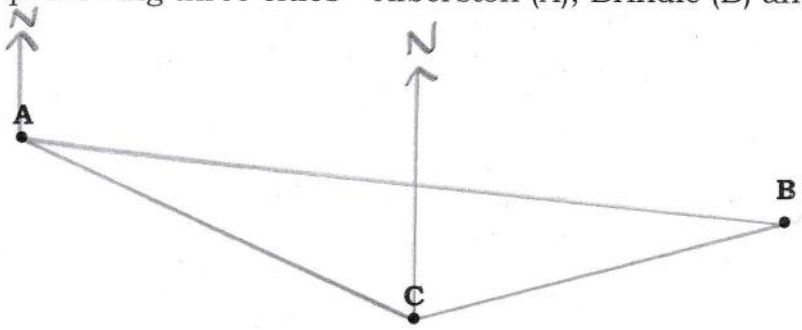
FOUNDATION TIER
MINI PRACTICE EXAM 9

CALCULATOR ALLOWED
20 MINUTES ALLOWED

metatutor

1.
Below is a map showing three cities – Alberston (A), Brindle (B) and Chenesbury (C).



Scale: 1 cm = 3 km

(a) Measure the three-figure bearing of Brindle from Chenesbury.

075°

(1)

(b) Measure the three-figure bearing of Chenesbury from Alberston.

115°

(1)

(c) How many metres is Alberston from Brindle?

10.2 cm x 3,000 = 30,600 m

(2)

2.
Bill runs a clothes shop.
He bought 50 t-shirts for £12.50 each and 40 hoodies for £19.50 each.
He sold 70% of the t-shirts for £20 each.
He sold three quarters of the hoodies for £28 each.
The rest of the items remained unsold.

How much profit did Bill make?

Spent: 50 x 12.50 = £625 + = £1,405
40 x 19.50 = £780

70% of 50 = 35 t-shirts sold
3/4 of 40 = 30 hoodies sold

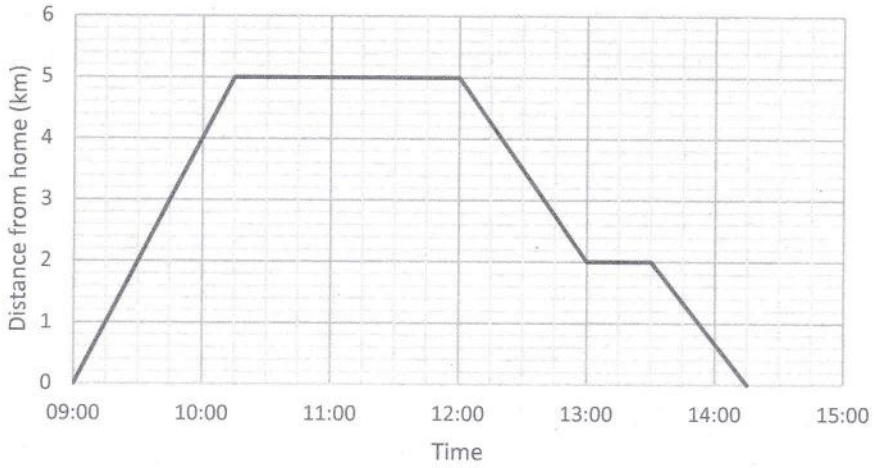
Sold: 35 x 20 = £700 + = £1,540
30 x 28 = £840

Profit = 1,540 − 1,405 = £135

(5)

3.

Karen cycled to her friend's house.
After spending some time at her friend's house, she started cycling home.
On the way back, she stopped at the shops to pick up some snacks.
She then continued her journey back home.
The distance-time graph below shows her journey.



(a) How long, in hours and minutes, did Karen spend at her friend's house?

1 hour 45 minutes

(1)

(b) At what time did Karen return home?

14:15

(1)

(c) Work out the average speed of Karen's journey from home to her friend's house.
Give your answer in kilometres per hour.

Time = 1.25 hours

5 ÷ 1.25 = 4 km per hour

(3)

4.

Lena, Mary and Noah have shared 106 sweets between them.
Mary has 14 more sweets than Lena.
Noah has twice as many sweets as Lena.

Work out how many sweets each person has.

Lena = x
Mary = x + 14
Noah = 2x

x + x + 14 + 2x = 106
4x + 14 = 106
−14 −14
4x = 92
÷4 ÷4
x = 23

Lena = 23
Mary = 37
Noah = 46

(6)