GCSE
MATHEMATICS

Topic tests – Higher tier – Real life

Name _____

1   A scooter is travelling at a constant speed of 75 kilometres per hour.

1 (a)   The scooter travels at this speed for 20 minutes.

How many kilometres has the scooter travelled in this time?

[1 mark]

Answer _____ km

1 (b)   The speed limit is 50 **miles** per hour.

Is the scooter travelling faster or slower than the speed limit?

[2 marks]

Faster ☐   Slower ☐

You **must** show your working.

AQA

2 On average it takes 47 lessons to pass the driving test.

Driving school A

First 5 lessons   £75

then £21 per lesson

Driving school B

Normal price   £23 per lesson

Special offer

15% off normal price

Which is cheaper for 47 lessons?

You **must** show your working.

[5 marks]

Answer _____

3   80 patients gave information about how long they waited to see the doctor.

Time, T, (minutes)	Frequency		
$0 \leqslant T < 10$	5		
$10 \leqslant T < 20$	22		
$20 \leqslant T < 30$	28		
$30 \leqslant T < 40$	21		
$40 \leqslant T < 50$	4		

3 (a)   Work out an estimate of the mean time that the patients waited.

[4 marks]

Answer _____ minutes

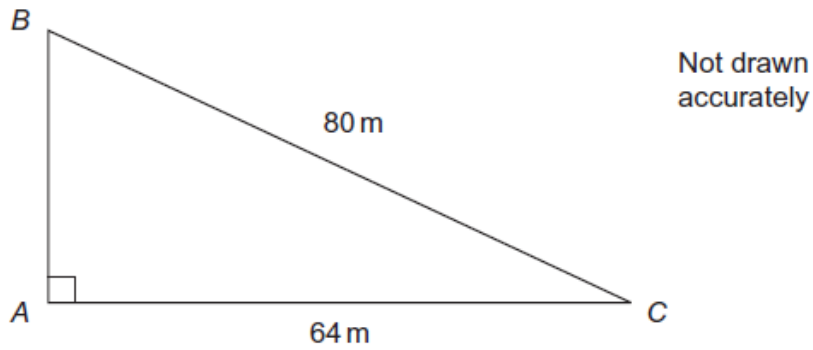**3 (b)**   The doctor says, "70% of our patients wait less than 30 minutes to be seen."

Is she correct?

You **must** show your working.

[3 marks]

Answer _____

4   This triangular plot of land is for sale.

Not drawn accurately

The land is sold for £ 6400 per acre.

1 acre $= 4047 \, \text{m}^2$

Work out the cost of the land.

Give your answer to 2 significant figures.

[6 marks]

£ _____

5   Pete is buying a house.

His salary is £36 000.

The bank will lend him 3.5 times his salary for a mortgage.

This is 90% of the house price.

Work out the house price.

[4 marks]

£ _____

END OF QUESTIONS

AQA