Mock Grade 4

Maths Booklet 6

Paper 1H
Non-Calculator

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Answer ALL questions.

Write your answers in the spaces provided.

You must write down all the stages in your working.

1   Solve $8x - 13 < 19$

....

(Total for Question 1 is 2 marks)

2   Write 156 as a product of its prime factors.

....

(Total for Question 2 is 2 marks)

3 A delivery company has a total of 180 cars and vans.

the number of cars : the number of vans = 8 : 7

Each car and each van uses electricity or diesel or petrol.

$\frac{1}{6}$ of the cars use electricity.

75% of the cars use diesel.
The rest of the cars use petrol.

Work out the number of cars that use petrol.
You must show all your working.

....

(Total for Question 3 is 5 marks)

4 (a) Write 3.08×10^{-5} as an ordinary number.

....

(1)

(b) Write 5 million in standard form.

....

(1)

(c) Calculate $(6.3 \times 10^5) \times (2.5 \times 10^{-2})$

Give your answer in standard form.

....

(2)

(Total for Question 4 is 4 marks)

5 (a) Work out $2\frac{1}{5} + 1\frac{1}{7}$

....

(2)

(b) Show that $3\frac{3}{4} \times \frac{7}{9} = 2\frac{11}{12}$

....

(2)

(Total for Question 5 is 4 marks)

6 In a village

the number of houses and the number of flats are in the ratio 9 : 5
the number of flats and the number of bungalows are in the ratio 15 : 8

There are 48 bungalows in the village.

How many houses are there in the village?

....

(Total for Question 6 is 3 marks)

7 Renee buys 10 kg of sweets to sell.
She pays £18 for the sweets.

Renee puts all the sweets into bags.
She puts 200 g of sweets into each bag.
She sells each bag of sweets for 45p.

Renee sells all the bags of sweets.

Work out her percentage profit.

....%

(Total for Question 7 is 4 marks)

8 A cycle race across America is 2611.25 miles in length.

Juan knows his average speed for his previous races is 20.34 miles per hour.
For the next race across America he will cycle for 5 hours per day.

(a) Estimate how many days Juan will take to complete the race.

(3)

Juan trains for the race.
The average speed he can cycle at increases.
It is now 23.15 miles per hour.

(b) How does this affect your answer to part (a)?

(1)

(Total for Question 8 is 4 marks)