Unit 5 · Decimal

HARDER PRACTICE QUESTIONS

Full marks 30

Write your answers on separate paper. Show your working, and check each answer with a quick estimate.

1 Spot the errors [3]

Rabina wrote: $0.3 \times 0.2 = 0.6$ and $4.5 \div 0.5 = 0.9$.

i. Correct each one.

ii. For each, give a quick check that shows her answer is the wrong size.

2 One product, many answers [4]

$236 \times 47 = 11092$. Use this to write down each answer without multiplying again. Say how you placed the point.

i. 2.36×4.7

ii. 0.236×47

iii. 23.6×0.047

iv. $11.092 \div 4.7$

3 The missing digit [3]

Find the missing digit: $3.\square \times 0.6 = 2.04$

4 Petrol for a ride [4]

Bibek's motorbike goes 45 km on one liter of petrol. He rides 63 km. Petrol costs Rs 170 a liter. (The numbers are made up for the problem.)

i. How many liters of petrol does he use?

ii. How much does the petrol cost?

iii. How far could he ride on Rs 340 of petrol?

5 Which is the better buy? [3]

A 1.5 liter bottle of juice costs Rs 75. A 2.25 liter bottle of the same juice costs Rs 108.

i. Find the price of 1 liter in each bottle.

ii. Which is the better buy, and by how much a liter?

6 Rounding backwards [3]

Sumina measured a leaf, wrote its length with two digits after the point, and then rounded it to the nearest tenth. She got 3.7 cm.

i. What is the smallest length she could have written?

ii. What is the largest?

iii. How many different lengths with two digits after the point round to 3.7?

7 A packet of paper [3]

A packet of 1000 sheets of paper is 8.5 cm thick. (The thickness is made up.)

i. How thick is one sheet?

ii. How thick are 250 sheets?

iii. How many sheets make a pile 1.7 cm thick?

8 Make your own [3]

Write a short problem from everyday life that is solved by 2.5×1.2. Then solve it, and say what the answer means in your problem.

9 Think: a sum and a product [4]

Two decimals, each with one digit after the point and each less than 1, have a product of 0.36 and a sum of 1.3.

i. Without the points, what must the two numbers multiply to?

ii. Find the two decimals.

iii. Find two decimals, each with one digit after the point, whose product is 0.36 and whose sum is 1.5.