



KS2.M-Y4N4 Multiplying and Dividing by 10, 100 and 1000

Calculators not allowed • about 40 minutes

Total Marks

Name: _____ Date: ____ / ____ / ____

Answer ALL questions. Show all your working.

- 1** Write the number 46 multiplied by 10.

(1)

- 2** What is 7 divided by 10 written as a decimal?

(1)

- 3** Multiply 3.2 by 10. Write your answer as a decimal.

(1)

- 4** Divide 2,400 by 100. Write the answer.

(1)

- 5** A recipe needs 0.25 litres of milk. How much milk is needed for 100 recipes?

(2)

- 6** Write 5,600 multiplied by 100 as a number.

(1)

7 A pencil costs 0.45 pounds. How much do 1,000 pencils cost?

(2)

8 Divide 0.06 by 10. Write the answer as a decimal.

(1)

9 Maya has 3.75 kg of flour. She uses 100 times this amount for a big bake. How much flour does she use in kg?

(2)

10 Write 8,209 divided by 10. Give the answer as a decimal or whole number.

(1)

11 Complete the missing number: 0.83 times 1000 = ____.

(2)

12 A model car is 0.032 m long. What is its length in millimetres? (1 m = 1000 mm)

(1)

- 13** Explain why multiplying a number by 100 moves each digit two places to the left on a place value chart. Use the number 4.6 as an example.

(2)

- 14** A school bought 0.9 kg of clay for each classroom. There are 100 classrooms. Explain in words how you would work out the total mass of clay and give the answer.

(2)

- 15** Write 12,345 multiplied by 10, then divide your answer by 100. What is the final result?

(1)

- 16** A sticker costs 0.06 pounds. How much do 1,000 stickers cost?

(2)

- 17** A medicine bottle contains 0.087 litres of liquid. How many millilitres is this? (1 litre = 1000 ml)

(2)

- 18** Sofia multiplies 5.4 by 1000 and says the digits move three places to the left. Explain why this is correct and show the answer.

(3)

Mark scheme · KS2.M-Y4N4 Multiplying and Dividing by 10, 100 and 1000

Question 1

- **B1** 460 cao
- Answer: **460**

Question 2

- **B1** 0.7 cao
- Answer: **0.7**

Question 3

- **B1** 32.0 or 32 cao
- Answer: **32**

Question 4

- **B1** 24 cao
- Answer: **24**

Question 5

- **M1** multiply 0.25 by 100 or recognise shift of decimal seen
- **A1** 25 litres cao
- Answer: **25**

Question 6

- **B1** 560,000 cao
- Answer: **560000**

Question 7

- **M1** multiply 0.45 by 1000 or shift decimal right 3 places
- **A1** 450.0 or 450 pounds cao
- Answer: **450**

Question 8

- **B1** 0.006 cao
- Answer: **0.006**

Question 9

- **M1** recognise multiply by 100 or shift decimal by 2 places
- **A1** 375 kg cao
- Answer: **375**

Question 10

- **B1** 820.9 or 820.90 cao
- Answer: **820.9**

Question 11

- **M1** shift decimal right 3 places or show multiplication
- **A1** 830 cao
- Answer: **830**

Question 12

- **B1** 32 mm cao
- Answer: **32**

Question 13

- **M1** reference to place value columns shifting or explanation that each 10 multiplies one place
- **A1** example: $4.6 \times 100 = 460$ and digits move two places left
- **Answer: $4.6 \times 100 = 460$**

Question 14

- **M1** method explained (multiply 0.9 by 100 or shift decimal two places) or correct intermediate
- **A1** 90 kg
- **Answer: 90**

Question 15

- **B1** 1,234.5
- **Answer: 1,234.5**

Question 16

- **M1** multiply 0.06 by 1000 or shift decimal right 3 places
- **A1** 60 pounds
- **Answer: 60**

Question 17

- **M1** multiply 0.087 by 1000 or shift decimal right 3 places
- **A1** 87 ml
- **Answer: 87**

Question 18

- **M1** explain that multiplying by 10 moves digits one place left and 1000 is $10 \times 10 \times 10$ so three places
- **M1** reference to decimal point shifting right 3 places or equivalent
- **A1** $5.4 \times 1000 = 5,400$
- **Answer: 5,400**