



KS2.M-Y5N6 Decimals and Percentages

Calculators not allowed · about 60 minutes

Total Marks

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Name: _____ Date: ____ / ____ / ____

Answer ALL questions. Show all your working.

- 1** Write 3.7 as a number of tenths. Give your answer as an integer.

(1)

- 2** What is the value of the digit 5 in the number 12.56?

(1)

- 3** Write 7.304 to the nearest hundredth.

(1)

- 4** Which has the greater value, 0.47 or $\frac{4}{10}$? Tick the correct box.

☐ 0.47 is greater

☐ $\frac{4}{10}$ is greater

☐ They are equal

- 5** Write 25% as a decimal.

(1)

- 6** Complete the statement: $0.6 = \frac{?}{10}$

(1)

- 7** Priya buys 3.5 m of ribbon and cuts it into 7 equal lengths. How long is each length in metres?

(2)

- 8** A shop reduces the price of a toy from £12.00 by 10%. Work out the new price.

(2)

- 9** Write 0.375 as a fraction in its simplest form.

(2)

- 10** Round 0.849 to the nearest tenth.

(1)

- 11** A recipe needs 0.75 litres of milk. Jess has a jug that holds 250 ml. How many full jugs does she need to measure 0.75 litres? (1 litre = 1000 ml)

(2)

- 12** Write the decimal 0.04 as a percentage.

(1)

13 Sami says that 0.2 is the same as 20% and $\frac{1}{5}$. Explain why Sami is correct.

(2)

14 A school has 240 pupils. 12.5% of the pupils walk to school. How many pupils walk to school?

(2)

15 Complete the table. Write each decimal in the correct column as tenths, hundredths or thousandths.

Numbers: 0.4, 0.08, 0.007, 0.30

(a) Place 0.4

(1)

(b) Place 0.08

(1)

(c) Place 0.007 and 0.30

(1)

16 A pair of trainers costs £36.00. The shop increases the price by 25% for a new design. Work out the new price.

(2)

17 Order these decimals from smallest to largest: 0.405, 0.45, 0.400, 0.395.

(2)

18 Explain whether 0.05 is the same as 5% and $\frac{1}{20}$. Give a short reason for each equivalence.

(3)

Mark scheme · KS2.M-Y5N6 Decimals and Percentages

Question 1

- **B1** 37 cao
- Answer: **37**

Question 2

- **B1** 0.5 or $\frac{1}{2}$ cao
- Answer: **0.5**

Question 3

- **B1** 7.30 or 7.3 cao
- Answer: **7.3**

Question 4

- **B1** 0.47 is greater cao
- Answer: **0.47 is greater**

Question 5

- **B1** 0.25 cao
- Answer: **0.25**

Question 6

- **B1** 6 cao
- Answer: **6**

Question 7

- **M1** Division $3.5 / 7$ seen or $35 / 70$ or equivalent
- **B1** 0.5 m cao
- Answer: **0.5**

Question 8

- **M1** 10% of £12.00 = £1.20 seen
- **B1** £10.80 cao
- Answer: **£10.80**

Question 9

- **M1** Correct fraction $375/1000$ or equivalent seen
- **B1** $3/8$ cao
- Answer: **$3/8$**

Question 10

- **B1** 0.8 cao
- Answer: **0.8**

Question 11

- **M1** Convert 0.75 L to 750 ml or recognise $0.75 = \frac{3}{4}$ and relate to 250 ml
- **B1** 3 cao
- Answer: **3**

Question 12

- **B1** 4% cao
- Answer: **4%**

Question 13

- **M1** Shows $0.2 = 2/10$ or $20/100$ or converts $1/5$ to 0.2
- **B1** Concludes equivalence e.g. $0.2 = 20\% = 1/5$ cao
- Answer: **0.2 = 1/5 = 20%**

Question 14

- **M1** 12.5% of 240 seen or $1/8$ of 240
- **B1** 30 cao
- Answer: **30**

Question 15

- (a) **B1** 0.4 placed in tenths column cao
- (a) Answer: **tenths**
- (b) **B1** 0.08 placed in hundredths column cao
- (b) Answer: **hundredths**
- (c) **B1** 0.007 placed in thousandths and 0.30 placed in hundredths cao
- (c) Answer: **0.007 -> thousandths; 0.30 -> hundredths**

Question 16

- **M1** 25% of £36.00 = £9.00 seen
- **B1** £45.00 cao
- Answer: **£45.00**

Question 17

- **M1** At least 3 of the 4 numbers placed in correct relative order or clear method shown for comparison
- **B1** 0.395, 0.400, 0.405, 0.45 cao
- Answer: **0.395, 0.400, 0.405, 0.45**

Question 18

- **M1** Shows $0.05 = 5/100$ or writes 0.05 as 5%
- **M1** Shows $1/20 = 5/100$ or converts $1/20$ to 0.05
- **B1** Concludes $0.05 = 5\% = 1/20$ cao
- Answer: **Yes. $0.05 = 5/100 = 5\%$, and $1/20 = 5/100 = 0.05$, so all are equivalent.**