4.2 Decimals and Percentages: Test Pack

NCETM KS2 National Curriculum Mathematics - NCETM Teaching for Mastery Framework · Calculators not allowed · about 60 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 Circle the decimal that is equivalent to 3/10.

- ☐ A) 0.3
- ☐ B) 0.03
- ☐ C) 3.0
- ☐ D) 0.13

2 In a class of 40 pupils, 2/5 of the pupils walk to school, 25% of the pupils cycle, and the rest come by car. Calculate how many pupils come by car.

(4)

3 A jacket normally costs £48. In a sale it is reduced by 25%. Calculate the sale price of the jacket.

(3)

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4 A juice costs £13.66 and a ball costs £5.24. Reece pays with a £20 note.

How much change does Reece get?

Answer: £___

(2)

---

5 Round 84.976 to 1 decimal place.

Answer: ___

(1)

---

6 Work out 30% of 28 cm.

Answer: ___

(2)

---

7 59.41 x 10 =

Answer: ___

(1)

---

8 Write these decimals in order, starting with the smallest.

1.094, 0.861, 0.934, 1.622

Answer: ___

(1)

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9 Write 7/8 as a percentage.

Answer: ___ %

(1)

---

10 Write 1/8 as a percentage.

Answer: ___ %

(2)

---

11 62 x ___ = 620

Answer: ___

(1)

---

12 2.2 x 0.3 =

Answer: ___

(1)

---

13 A games console costs £220. In a sale it is reduced by 15%. Priya has saved £180. Does she have enough money to buy the console in the sale? Show your working and explain your answer.

(4)

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14 A toy car costs £3.53 and a ruler costs £7.90.

What is the total cost of the two items?

Answer: £___

(1)

---

15 Each lap is 8.7 km. Poppy runs 5 laps. How far does Poppy run?

Answer: ___ km

(2)

---

16 45.09 - 3.46 =

Answer: ___

(1)

---

17 Write these in order, smallest first.

3/10, 1/5, 1/4

Answer: ___

(1)

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18 Work out the following.

(a) 3.2 x 10 **(1)**

(b) 45.6 / 100 **(1)**

(c) 0.7 x 1000 **(1)**

---

19 5.2 x 0.6 =

Answer: ___

(1)

---

20 Complete the missing value in each row of this fraction, decimal and percentage table.

(a) 1/4 = 0.25 = ? % **(1)**

(b) ? = 0.6 = 60% **(1)**

(c) 3/4 = ? = 75% **(1)**

---

21 Write 9/25 as a decimal.

Answer: ___

(2)

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22 3,200 x 10 =

Answer: ___

(1)

---

23 Work out 25% of 100 cm.

Answer: ___

(2)

---

24 A plank is 1.8 metres. How many metres are there in 4 planks?

Answer: ___ metres

(1)

---

25 Priya orders four numbers from smallest to largest like this: 3/8, 0.35, 42%, 0.4. Is Priya correct? Explain your answer, giving the correct order if she is wrong.

(2)

---

26 53.51 divided by 10 =

Answer: ___

(1)

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Mark scheme · 4.2 Decimals and Percentages: Test Pack

A correct answer earns full marks unless the question asks for working, a method, proof or explanation.

Question 1

0.3 circled; cao — B1

Answer: **0.3**

Question 2

2/5 of 40 = 16 (walk) oe — M1

25% of 40 = 10 (cycle) oe — M1

16 + 10 = 26 (walk and cycle together), ft — M1

14 cao — A1

Answer: **14**

Question 3

25% of 48 = 12 oe — M1

48 - 12, ft from a correct 25% — M1

£36 cao — A1

Answer: **£36**

Question 4

18.90 seen — M1

£1.10 cao — A1

Answer: **£1.10**

Question 5

85.0 cao — B1

Answer: **85.0**

Question 6

10% or 1% found — M1

8.4 cm cao — A1

Answer: **8.4 cm**

Question 7

594.1 cao — B1

Answer: **594.1**

Question 8

0.861, 0.934, 1.094, 1.622 cao — B1

Answer: **0.861, 0.934, 1.094, 1.622**

Question 9

87.5% cao — B1

Answer: **87.5%**

Question 10

method seen — M1

12.5% cao — A1

Answer: **12.5%**

Question 11

10 cao — B1

Answer: **10**

Question 12

0.66 cao — B1

Answer: **0.66**

Question 13

finds 10% of 220 = 22 and 5% of 220 = 11, or equivalent method for 15% oe — M1

15% of 220 = 33, so sale price = 220 - 33 = 187, ft — M1

compares £187 with £180 correctly — A1

cso; correct conclusion that Priya does not have enough money, and is £7 short — A1

Answer: **No, the sale price is £187, which is £7 more than Priya has saved.**

Question 14

£11.43 cao — B1

Answer: **£11.43**

Question 15

multiplication seen — M1

43.5 km cao — A1

Answer: **43.5 km**

Question 16

41.63 cao — B1

Answer: **41.63**

Question 17

1/5, 1/4, 3/10 cao — B1

Answer: **1/5, 1/4, 3/10**

Question 18

(a) 32 cao — B1

(a) Answer: **32**

(b) 0.456 cao — B1

(b) Answer: **0.456**

(c) 700 cao — B1

(c) Answer: **700**

Question 19

3.12 cao — B1

Answer: **3.12**

Question 20

(a) 25% cao — B1

(a) Answer: **25%**

(b) 3/5 oe cao (simplest form) — B1

(b) Answer: **3/5**

(c) 0.75 cao — B1

(c) Answer: **0.75**

Question 21

method seen — M1

0.36 cao — A1

Answer: **0.36**

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Question 22

32,000 cao	**B1**

Answer: **32,000**

Question 23

10% or 1% found	**M1**
25 cm cao	**A1**

Answer: **25 cm**

Question 24

7.2 metres cao	**B1**

Answer: **7.2 metres**

Question 25

converts at least three of the four values to a common form for comparison, e.g. 3/8 = 37.5%, 0.35 = 35%, 42%, 0.4 = 40% oe	**M1**
cso; states Priya is incorrect and gives the correct order 0.35, 3/8, 0.4, 42%	**A1**

Answer: **No, Priya is incorrect. The correct order is 0.35, 3/8, 0.4, 42%.**

Question 26

5.351 cao	**B1**

Answer: **5.351**

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