4.2 Decimals and Percentages: 2-hour Pack

NCETM KS2 National Curriculum Mathematics - NCETM Teaching for Mastery Framework · Calculators not allowed · about 120 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 In a sale, a book costs £75. The price is reduced by 75%.

What is the sale price?

Answer: £___

(3)

---

2 58.13 + 6.79 =

Answer: ___

(1)

---

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

4.71, 4.46, 4.48, 4.76

Answer: ___

(1)

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4 Increase 44 cm by 50%.

Answer: ___

(1)

---

5 In a sale, a puzzle costs £65. The price is reduced by 20%.

What is the sale price?

Answer: £___

(3)

---

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

8.00, 8.75, 8.94, 8.36

Answer: ___

(1)

---

7 70.68 - 5.53 =

Answer: ___

(1)

---

8 What is the value of the digit 5 in 1.856?

Answer: ___

(1)

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9 178 divided by 2 =

Answer: ___

(1)

---

10 Round 849.02 to the nearest whole number.

Answer: ___

(1)

---

11 Round 55.1 to the nearest whole number.

Answer: ___

(1)

---

12 Work out 75% of 8 kg.

Answer: ___

(1)

---

13 8.0 x 0.7 =

Answer: ___

(1)

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14 A comic costs £2 and a rubber costs £4.96.

What is the total cost of the two items?

Answer: £___

(2)

---

15 Write 0.2 as a fraction in its simplest form.

Answer: ___

(2)

---

16 Write 0.14 as a fraction in its simplest form.

Answer: ___

(2)

---

17 83.92 - 4.25 =

Answer: ___

(1)

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18 A keyring costs £15.39 and a apple costs £8.77.

What is the total cost of the two items?

Answer: £___

(2)

---

19 81.3 x 2 =

Answer: ___

(1)

---

20 400 divided by 5 =

Answer: ___

(1)

---

21 Increase 48 cm by 75%.

Answer: ___

(3)

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22 Write these decimals in order, starting with the largest.

8.00, 8.03, 8.11, 8.47

Answer: ___

(1)

---

23 What percentage of 20 is 3?

Answer: ___ %

(1)

---

24 In a sale, a T-shirt costs £150. The price is reduced by 75%.

How much is the reduction?

Answer: £___

(2)

---

25 A rubber costs £5.27 and a bun costs £19.91. Olu pays with a £30 note.

How much change does Olu get?

Answer: £___

(2)

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26 A notebook costs £15.65 and a sticker costs £11.30.

How much more does the dearer item cost?

Answer: £___

(2)

---

27 What percentage of 250 is 120?

Answer: ___ %

(2)

---

28 Round 46.142 to 1 decimal place.

Answer: ___

(1)

---

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

4.08, 4.77, 4.41, 4.18

Answer: ___

(1)

---

30 72.53 - 2.11 =

Answer: ___

(1)

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31 Write these in order, smallest first.

9/20, 0.25, 0.7

Answer: ___

(1)

---

32 41.9 x 6 =

Answer: ___

(1)

---

33 What is the value of the digit 5 in 6.385?

Answer: ___

(1)

---

34 Write these decimals in order, starting with the largest.

8.80, 8.07, 8.19, 8.49

Answer: ___

(1)

---

35 Decrease 2 m by 5%.

Answer: ___

(2)

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36 7.9 x 0.2 =

Answer: ___

(1)

---

37 Round 4.983 to 2 decimal places.

Answer: ___

(1)

---

38 5,921 divided by 100 =

Answer: ___

(1)

---

39 Calculate the following percentages of £240.

(a) 10% of £240 **(1)**

(b) 25% of £240 **(1)**

(c) 50% of £240 **(1)**

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

7.69, 7.49, 7.25, 7.75

Answer: ___

(1)

---

41 Decrease 80 cm by 50%.

Answer: ___

(1)

---

42 In a sale, a bag costs £25. The price is reduced by 30%.

What is the sale price?

Answer: £___

(3)

---

43 Work out 45% of 156 m.

Answer: ___

(2)

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44 33.95 + 7.19 =

Answer: ___

(1)

---

45 A kite costs £16.90 and a ruler costs £10.38.

What is the total cost of the two items?

Answer: £___

(1)

---

46 Write these in order, smallest first.

1/4, 0.45, 0.65

Answer: ___

(2)

---

47 Increase 112 by 75%.

Answer: ___

(1)

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48 Work out the following, lining up the decimal points carefully.

(a) 3.2 + 1.75 **(2)**

(b) 8 - 3.45 **(2)**

49 Write these decimals in order, starting with the largest.

1.93, 1.58, 1.99, 1.09

Answer: ___

(1)

50 Write these in order, smallest first.

0.4, 0.75, 20%

Answer: ___

(1)

51 55.63 + 9.51 =

Answer: ___

(1)

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

1.824, 1.319, 1.259, 1.119

Answer: ___

(1)

---

53 652.8 divided by 8 =

Answer: ___

(1)

---

54 Write these in order, smallest first.

13/20, 0.4, 0.7

Answer: ___

(2)

---

55 A balloon costs £7.08 and a sticker costs £3.58.

What is the total cost of the two items?

Answer: £___

(2)

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

1.29, 1.42, 1.21, 1.48

Answer: ___

(1)

---

57 What percentage of 250 is 235?

Answer: ___ %

(1)

---

58 Decrease £72 by 60%.

Answer: ___

(3)

---

59 Round 6.948 to 2 decimal places.

Answer: ___

(1)

---

60 Write these decimals in order, starting with the largest.

1.761, 1.174, 0.978, 1.147

Answer: ___

(1)

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61 A plank is 7.6 metres. How many metres are there in 7 planks?

Answer: ___ metres

(2)

---

62 Ella scored 12 out of 40 in a test.

Write this score as a percentage.

Answer: ___ %

(2)

---

63 223.2 divided by 8 =

Answer: ___

(1)

---

64 Increase 92 kg by 40%.

Answer: ___

(2)

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Mark scheme · 4.2 Decimals and Percentages: 2-hour Pack

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

Question 1

reduction found	M1
subtracts from the original price	M1
£18.75 cao	A1

Answer: **£18.75**

Question 2

64.92 cao	B1

Answer: **64.92**

Question 3

4.46, 4.48, 4.71, 4.76 cao	B1

Answer: **4.46, 4.48, 4.71, 4.76**

Question 4

66 cm cao	B1

Answer: **66 cm**

Question 5

reduction found	M1
subtracts from the original price	M1
£52 cao	A1

Answer: **£52**

Question 6

8.00, 8.36, 8.75, 8.94 cao	B1

Answer: **8.00, 8.36, 8.75, 8.94**

Question 7

65.15 cao	B1

Answer: **65.15**

Question 8

0.05 cao	B1

Answer: **0.05**

Question 9

89 cao	B1

Answer: **89**

Question 10

849 cao	B1

Answer: **849**

Question 11

55 cao	B1

Answer: **55**

Question 12

6 kg cao	B1

Answer: **6 kg**

Question 13

5.6 cao	B1

Answer: **5.6**

Question 14

addition of pounds and pence	M1
£6.96 cao	A1

Answer: **£6.96**

Question 15

method seen	M1
1/5 cao	A1

Answer: **1/5**

Question 16

method seen	M1
7/50 cao	A1

Answer: **7/50**

Question 17

79.67 cao	B1

Answer: **79.67**

Question 18

addition of pounds and pence	M1
£24.16 cao	A1

Answer: **£24.16**

Question 19

162.6 cao	B1

Answer: **162.6**

Question 20

80 cao	B1

Answer: **80**

Question 21

percentage found	M1
adds or subtracts correctly	M1
84 cm cao	A1

Answer: **84 cm**

Question 22

8.47, 8.11, 8.03, 8.00 cao	B1

Answer: **8.47, 8.11, 8.03, 8.00**

Question 23

15% cao	B1

Answer: **15%**

Question 24

method for the percentage	M1
£112.50 cao	A1

Answer: **£112.50**

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Question 25

25.18 seen — M1
£4.82 cao — A1
Answer: **£4.82**

Question 26

subtraction method — M1
£4.35 cao — A1
Answer: **£4.35**

Question 27

fraction as a percentage — M1
48% cao — A1
Answer: **48%**

Question 28

46.1 cao — B1
Answer: **46.1**

Question 29

4.08, 4.18, 4.41, 4.77 cao — B1
Answer: **4.08, 4.18, 4.41, 4.77**

Question 30

70.42 cao — B1
Answer: **70.42**

Question 31

0.25, 9/20, 0.7 cao — B1
Answer: **0.25, 9/20, 0.7**

Question 32

251.4 cao — B1
Answer: **251.4**

Question 33

0.005 cao — B1
Answer: **0.005**

Question 34

8.80, 8.49, 8.19, 8.07 cao — B1
Answer: **8.80, 8.49, 8.19, 8.07**

Question 35

percentage found — M1
1.9 m cao — A1
Answer: **1.9 m**

Question 36

1.58 cao — B1
Answer: **1.58**

Question 37

4.98 cao — B1
Answer: **4.98**

Question 38

59.21 cao — B1
Answer: **59.21**

Question 39

(a) £24 cao — B1
(a) Answer: **£24**
(b) £60 cao — B1
(b) Answer: **£60**
(c) £120 cao — B1
(c) Answer: **£120**

Question 40

7.25, 7.49, 7.69, 7.75 cao — B1
Answer: **7.25, 7.49, 7.69, 7.75**

Question 41

40 cm cao — B1
Answer: **40 cm**

Question 42

reduction found — M1
subtracts from the original price — M1
£17.50 cao — A1
Answer: **£17.50**

Question 43

10% or 1% found — M1
70.2 m cao — A1
Answer: **70.2 m**

Question 44

41.14 cao — B1
Answer: **41.14**

Question 45

£27.28 cao — B1
Answer: **£27.28**

Question 46

converts to a common form — M1
1/4, 0.45, 0.65 cao — A1
Answer: **1/4, 0.45, 0.65**

Question 47

196 cao — B1
Answer: **196**

Question 48

(a) aligns decimal points correctly, e.g. writes 3.20 + 1.75 oe — M1
(a) 4.95 cao — A1
(a) Answer: **4.95**
(b) aligns decimal points correctly, e.g. writes 8.00 - 3.45 oe — M1
(b) 4.55 cao — A1
(b) Answer: **4.55**

Question 49

1.99, 1.93, 1.58, 1.09 cao — B1
Answer: **1.99, 1.93, 1.58, 1.09**

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Question 50

20%, 0.4, 0.75 cao — **B1**

Answer: **20%, 0.4, 0.75**

Question 51

65.14 cao — **B1**

Answer: **65.14**

Question 52

1.119, 1.259, 1.319, 1.824 cao — **B1**

Answer: **1.119, 1.259, 1.319, 1.824**

Question 53

81.6 cao — **B1**

Answer: **81.6**

Question 54

converts to a common form — **M1**

0.4, 13/20, 0.7 cao — **A1**

Answer: **0.4, 13/20, 0.7**

Question 55

addition of pounds and pence — **M1**

£10.66 cao — **A1**

Answer: **£10.66**

Question 56

1.21, 1.29, 1.42, 1.48 cao — **B1**

Answer: **1.21, 1.29, 1.42, 1.48**

Question 57

94% cao — **B1**

Answer: **94%**

Question 58

percentage found — **M1**

adds or subtracts correctly — **M1**

£28.80 cao — **A1**

Answer: **£28.80**

Question 59

6.95 cao — **B1**

Answer: **6.95**

Question 60

1.761, 1.174, 1.147, 0.978 cao — **B1**

Answer: **1.761, 1.174, 1.147, 0.978**

Question 61

multiplication seen — **M1**

53.2 metres cao — **A1**

Answer: **53.2 metres**

Question 62

converts to a fraction out of 100 — **M1**

30% cao — **A1**

Answer: **30%**

Question 63

27.9 cao — **B1**

Answer: **27.9**

Question 64

percentage found — **M1**

128.8 kg cao — **A1**

Answer: **128.8 kg**

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