4.4 Fractions, Decimals and Percentages Depth: 2-hour Pack

NCETM National Curriculum (2014) Mathematics - KS2 Fractions, Decimals and Percentages (Depth) · Calculators not allowed · about 120 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 Work out 4 1/2 + 1 1/2.

Give your answer in its simplest form.

Answer: ___

(2)

---

2 Work out 2 1/3 + 2 1/4.

Give your answer in its simplest form.

Answer: ___

(1)

---

3 Work out 3/4 - 1/8.

Give your answer in its simplest form.

Answer: ___

(3)

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4 Write <, > or = in the box.

4/7 [ ] 8/12

Answer: ___

(2)

---

5 What is the value of the digit 8 in 5.638?

Answer: ___

(1)

---

6 5/8 x 2/4 =

Answer: ___

(2)

---

7 Work out 2 4/5 - 2 3/5.

Give your answer in its simplest form.

Answer: ___

(1)

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8 A bottle holds 7.1 litres. How many litres are there in 9 bottles?

Answer: ___ litres

(2)

---

9 Work out 1/2 + 1/2.

Give your answer in its simplest form.

Answer: ___

(3)

---

10 Work out 5% of 54 m.

Answer: ___

(2)

---

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

0.889, 1.391, 1.210, 0.500

Answer: ___

(1)

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12 2/6 x 1/2 =

Answer: ___

(1)

---

13 Write 7/20 as a percentage.

Answer: ___ %

(2)

---

14 23.96 - 4.99 =

Answer: ___

(1)

---

15 Decrease 12 kg by 5%.

Answer: ___

(3)

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16 A lolly costs £10.39 and a bun costs £12.98.

What is the total cost of the two items?

Answer: £___

(2)

---

17 49.34 - 8.35 =

Answer: ___

(1)

---

18 What decimal is made from 9 ones, 5 tenths, 9 hundredths and 5 thousandths?

Answer: ___

(1)

---

19 Write 3/25 as a decimal.

Answer: ___

(2)

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20 A banana costs £4.34 and a bun costs £2.96.

How much more does the dearer item cost?

Answer: £___

(2)

---

21 In a sale, a game costs £135. The price is reduced by 50%.

How much is the reduction?

Answer: £___

(2)

---

22 Write <, > or = in the box.

6/7 [ ] 11/12

Answer: ___

(2)

---

23 Each lap is 2.7 km. Olu runs 9 laps. How far does Olu run?

Answer: ___ km

(2)

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24 Work out 20% of 108 m.

Answer: ___

(1)

---

25 2/5 + 1/3 =

Answer: ___

(2)

---

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

2.61, 2.95, 2.52, 2.28

Answer: ___

(1)

---

27 Write 12/24 in its simplest form.

Answer: ___

(2)

---

28 Work out 1/3 + 2/3.

Give your answer in its simplest form.

Answer: ___

(1)

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29 A toy car costs £10.89 and a rubber costs £16.27.

What is the total cost of the two items?

Answer: £___

(2)

---

30 Write these fractions in order, starting with the smallest.

1/2, 9/10, 1/4

Answer: ___

(2)

---

31 Decrease £8 by 5%.

Answer: ___

(1)

---

32 Work out 2 3/4 + 1 5/8.

Give your answer in its simplest form.

Answer: ___

(2)

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33 A bottle holds 1.9 litres. How many litres are there in 9 bottles?

Answer: ___ litres

(2)

---

34 72.53 - 2.50 =

Answer: ___

(1)

---

35 How many hundredths are in 0.93?

Answer: ___

(1)

---

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

5.71, 5.39, 5.50, 5.44

Answer: ___

(1)

---

37 45.76 + 1.48 =

Answer: ___

(1)

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

2.26, 2.89, 2.96, 2.37

Answer: ___

(1)

---

39 Write <, > or = in the box.

2/3 [ ] 1/4

Answer: ___

(2)

---

40 Each lap is 4.6 km. Ivan runs 3 laps. How far does Ivan run?

Answer: ___ km

(2)

---

41 Write these fractions in order, starting with the largest.

1/4, 1/2, 3/4

Answer: ___

(1)

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42 Work out 2 3/5 + 1 7/10. Give your answer as a mixed number in its simplest form.

(3)

---

43 Work out 1 3/5 + 2 2/5.

Give your answer in its simplest form.

Answer: ___

(2)

---

44 A bottle holds 3.1 litres. How many litres are there in 7 bottles?

Answer: ___ litres

(2)

---

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

2.45, 2.29, 2.15, 2.07

Answer: ___

(1)

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46 Aaron scored 3 out of 20 in a test.

Write this score as a percentage.

Answer: ___ %

(2)

---

47 In a sale, a book costs £65. The price is reduced by 40%.

How much is the reduction?

Answer: £___

(1)

---

48 3/8 = ___/40

Answer: ___

(1)

---

49 A pencil costs £2.70 and a kite costs £5.51.

How much more does the dearer item cost?

Answer: £___

(2)

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50 Work out 3/8 * 6. Give your answer as a mixed number in its simplest form.

(2)

---

51 What decimal is made from 9 ones, 9 tenths, 4 hundredths and 2 thousandths?

Answer: ___

(1)

---

52 Which fraction is equivalent to 1/8?

A: 5/40 B: 6/13 C: 5/41 D: 6/40

Write the letter.

Answer: ___

(1)

---

53 56.33 - 4.55 =

Answer: ___

(1)

---

54 Work out 4/5 + 7/10.

Give your answer in its simplest form.

Answer: ___

(2)

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55 A biscuit costs £2.57 and a comic costs £5.26.

How much more does the dearer item cost?

Answer: £___

(2)

---

56 A sandwich costs £1.42 and a keyring costs £2.57. Quinn pays with a £5 note.

How much change does Quinn get?

Answer: £___

(2)

---

57 Work out 7/8 - 3/8.

Give your answer in its simplest form.

Answer: ___

(2)

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Mark scheme · 4.4 Fractions, Decimals and Percentages Depth: 2-hour Pack

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

Question 1

converts to a common denominator	M1
6 cao	A1

Answer: **6**

Question 2

4 7/12 or 55/12 cao	B1

Answer: **4 7/12**

Question 3

converts to a common denominator	M1
one correct fraction seen	M1
5/8 cao	A1

Answer: **5/8**

Question 4

common denominator seen	M1
< cao	A1

Answer: **<**

Question 5

0.008 cao	B1

Answer: **0.008**

Question 6

method seen	M1
5/16 cao	A1

Answer: **5/16**

Question 7

1/5 cao	B1

Answer: **1/5**

Question 8

multiplication seen	M1
63.9 litres cao	A1

Answer: **63.9 litres**

Question 9

converts to a common denominator	M1
one correct fraction seen	M1
1 cao	A1

Answer: **1**

Question 10

10% or 1% found	M1
2.7 m cao	A1

Answer: **2.7 m**

Question 11

1.391, 1.210, 0.889, 0.500 cao	B1

Answer: **1.391, 1.210, 0.889, 0.500**

Question 12

1/6 cao	B1

Answer: **1/6**

Question 13

method seen	M1
35% cao	A1

Answer: **35%**

Question 14

18.97 cao	B1

Answer: **18.97**

Question 15

percentage found	M1
adds or subtracts correctly	M1
11.4 kg cao	A1

Answer: **11.4 kg**

Question 16

addition of pounds and pence	M1
£23.37 cao	A1

Answer: **£23.37**

Question 17

40.99 cao	B1

Answer: **40.99**

Question 18

9.595 cao	B1

Answer: **9.595**

Question 19

method seen	M1
0.12 cao	A1

Answer: **0.12**

Question 20

subtraction method	M1
£1.38 cao	A1

Answer: **£1.38**

Question 21

method for the percentage	M1
£67.50 cao	A1

Answer: **£67.50**

Question 22

common denominator seen	M1
< cao	A1

Answer: **<**

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Question 23

multiplication seen M1
24.3 km cao A1
Answer: **24.3 km**

Question 24

21.6 m cao B1
Answer: **21.6 m**

Question 25

method seen M1
11/15 cao A1
Answer: **11/15**

Question 26

2.28, 2.52, 2.61, 2.95 cao B1
Answer: **2.28, 2.52, 2.61, 2.95**

Question 27

divides numerator and denominator by a common factor M1
1/2 cao A1
Answer: **1/2**

Question 28

1 cao B1
Answer: **1**

Question 29

addition of pounds and pence M1
£27.16 cao A1
Answer: **£27.16**

Question 30

converts to a common denominator or decimals M1
1/4, 1/2, 9/10 cao A1
Answer: **1/4, 1/2, 9/10**

Question 31

£7.60 cao B1
Answer: **£7.60**

Question 32

converts to a common denominator M1
4 3/8 or 35/8 cao A1
Answer: **4 3/8**

Question 33

multiplication seen M1
17.1 litres cao A1
Answer: **17.1 litres**

Question 34

70.03 cao B1
Answer: **70.03**

Question 35

93 cao B1
Answer: **93**

Question 36

5.71, 5.50, 5.44, 5.39 cao B1
Answer: **5.71, 5.50, 5.44, 5.39**

Question 37

47.24 cao B1
Answer: **47.24**

Question 38

2.96, 2.89, 2.37, 2.26 cao B1
Answer: **2.96, 2.89, 2.37, 2.26**

Question 39

common denominator seen M1
> cao A1
Answer: **>**

Question 40

multiplication seen M1
13.8 km cao A1
Answer: **13.8 km**

Question 41

3/4, 1/2, 1/4 cao B1
Answer: **3/4, 1/2, 1/4**

Question 42

2 3/5 converted to tenths, e.g. 2 6/10 oe M1
whole numbers and fractions combined correctly, e.g. 3 + 13/10 oe M1
4 3/10 cao A1
Answer: **4 3/10**

Question 43

converts to a common denominator M1
4 cao A1
Answer: **4**

Question 44

multiplication seen M1
21.7 litres cao A1
Answer: **21.7 litres**

Question 45

2.07, 2.15, 2.29, 2.45 cao B1
Answer: **2.07, 2.15, 2.29, 2.45**

Question 46

converts to a fraction out of 100 M1
15% cao A1
Answer: **15%**

Question 47

£26 cao B1
Answer: **£26**

Question 48

15 cao B1
Answer: **15**

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Question 49

subtraction method	M1
£2.81 cao	A1

Answer: **£2.81**

Question 50

18/8 oe seen	M1
2 1/4 cao	A1

Answer: **2 1/4**

Question 51

9.942 cao	B1

Answer: **9.942**

Question 52

A cao	B1

Answer: **A**

Question 53

51.78 cao	B1

Answer: **51.78**

Question 54

converts to a common denominator	M1
1 1/2 or 3/2 cao	A1

Answer: **1 1/2**

Question 55

subtraction method	M1
£2.69 cao	A1

Answer: **£2.69**

Question 56

3.99 seen	M1
£1.01 cao	A1

Answer: **£1.01**

Question 57

converts to a common denominator	M1
1/2 cao	A1

Answer: **1/2**

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