4.4 Fractions, Decimals and Percentages Depth: 1-hour Pack

NCETM National Curriculum (2014) Mathematics - KS2 Fractions, Decimals and Percentages (Depth) · Calculators not allowed · about 60 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 A charity is packing gift bags. Each bag needs 3/4 of a metre of ribbon. The charity has 15 metres of ribbon in total, and has already used 2/5 of it on wrapping paper trims.

(a) How many metres of ribbon are left for gift bags? **(2)**

.....

(b) How many complete gift bags can be made from the ribbon that is left? Show that your answer is correct. **(3)**

2 Write 1/20 as a percentage.

Answer: ___ %

(2)

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

Give your answer in its simplest form.

Answer: ___

(3)

---

4 68.56 - 6.42 =

Answer: ___

(1)

---

5 4/6 - 3/6 =

Answer: ___

(2)

---

6 Work out 2 2/5 + 2 1/5.

Give your answer in its simplest form.

Answer: ___

(2)

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7 How many hundredths are in 0.83?

Answer: ___

(1)

---

8 3/6 x 1/5 =

Answer: ___

(2)

---

9 Write 55% as a fraction in its simplest form.

Answer: ___

(2)

---

10 Kwame has £72 in his savings account. He spends 5/8 of it on a new bicycle. How much money does he spend?

(2)

---

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

1.199, 0.713, 1.145, 1.075

Answer: ___

(1)

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12 A bottle holds 6.7 litres. How many litres are there in 7 bottles?

Answer: ___ litres

(2)

---

13 23.82 - 0.16 =

Answer: ___

(1)

---

14 A school has 260 pupils. 15% of the pupils walk to school. How many pupils walk to school?

(3)

---

15 A recipe for flapjacks uses 3/4 of a bag of oats to make 8 flapjacks. Ffion wants to make 20 flapjacks. What fraction of a bag of oats does she need?

(3)

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16 In a spelling test out of 40, Priya scored 34 marks.

(a) Write her score as a fraction of the total, in its simplest form. **(2)**

(b) Write her score as a percentage. **(1)**

---

17 4/5 + 5/10 =

Answer: ___

(2)

---

18 Which fraction is equivalent to 2/3?

A: 8/12 B: 8/13 C: 9/12 D: 6/7

Write the letter.

Answer: ___

(1)

---

19 28.32 + 2.58 =

Answer: ___

(1)

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20 Round 86.56 to the nearest whole number.

Answer: ___

(1)

---

21 2/5 = 12/___

Answer: ___

(1)

---

22 Write these in order, smallest first.

20%, 50%, 65%

Answer: ___

(2)

---

23 A rubber costs £17.20 and a pencil costs £1.29. Quinn pays with a £20 note.

How much change does Quinn get?

Answer: £___

(2)

---

24 Work out 7/8 - 1/3. Give your answer in its simplest form.

(2)

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Mark scheme · 4.4 Fractions, Decimals and Percentages Depth: 1-hour Pack

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

Question 1

(a) 2/5 of 15 = 6 found oe	M1
(a) 9 m cao	A1
(a) Answer: **9 m**	
(b) 9 divided by 3/4 set up, e.g. 9 * 4/3, ft from part a	M1
(b) 12 bags cao	A1
(b) cso; verification shown that 12 * 3/4 = 9, confirming the answer matches the ribbon available	B1
(b) Answer: **12 gift bags (12 * 3/4 = 9 m, matching the ribbon available)**	

Question 2

method seen	M1
5% cao	A1
Answer: **5%**	

Question 3

converts to a common denominator	M1
one correct fraction seen	M1
5 1/2 or 11/2 cao	A1
Answer: **5 1/2**	

Question 4

62.14 cao	B1
Answer: **62.14**	

Question 5

method seen	M1
1/6 cao	A1
Answer: **1/6**	

Question 6

converts to a common denominator	M1
4 3/5 or 23/5 cao	A1
Answer: **4 3/5**	

Question 7

83 cao	B1
Answer: **83**	

Question 8

method seen	M1
1/10 cao	A1
Answer: **1/10**	

Question 9

method seen	M1
11/20 cao	A1
Answer: **11/20**	

Question 10

72 / 8 = 9 (finds one eighth) oe	M1
£45 cao	A1
Answer: **£45**	

Question 11

0.713, 1.075, 1.145, 1.199 cao	B1
Answer: **0.713, 1.075, 1.145, 1.199**	

Question 12

multiplication seen	M1
46.9 litres cao	A1
Answer: **46.9 litres**	

Question 13

23.66 cao	B1
Answer: **23.66**	

Question 14

10% of 260 = 26 found oe	M1
5% of 260 = 13 found, ft from their 10%	M1
39 cao	A1
Answer: **39 pupils**	

Question 15

scale factor found, 20 / 8 = 5/2 oe (or oats per flapjack, 3/4 divided by 8 = 3/32)	M1
3/4 * 5/2 = 15/8 oe seen, ft	M1
1 7/8 bags cao	A1
Answer: **1 7/8 bags of oats**	

Question 16

(a) 34/40 oe seen	M1
(a) 17/20 cao	A1
(a) Answer: **17/20**	
(b) 85% cao, ft from part a	B1
(b) Answer: **85%**	

Question 17

method seen	M1
1 3/10 or 13/10 cao	A1
Answer: **1 3/10**	

Question 18

A cao	B1
Answer: **A**	

Question 19

30.9 cao	B1
Answer: **30.9**	

Question 20

87 cao	B1
Answer: **87**	

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Question 21

30 cao	**B1**

Answer: **30**

Question 22

converts to a common form	**M1**
20%, 50%, 65% cao	**A1**

Answer: **20%, 50%, 65%**

Question 23

18.49 seen	**M1**
£1.51 cao	**A1**

Answer: **£1.51**

Question 24

common denominator of 24 used, e.g. 21/24 - 8/24 oe	**M1**
13/24 cao	**A1**

Answer: **13/24**

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