4.3 Fractions: Equivalence, Ordering and Calculation: Test Pack

NCETM National Curriculum (2014) Mathematics - KS2 Number: Fractions (Equivalence, Ordering and Calculation) · Calculators not allowed · about 60 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 Complete each equivalent fraction statement.

(a) 2/5 = ?/20 **(1)**

(b) Write 18/24 in its simplest form. **(1)**

2 Write these fractions in order of size, starting with the smallest: 5/8, 1/8, 6/8, 3/8

(2)

3 Show that 5/6 is greater than 7/9, without using a calculator.

(2)

4 A fraction in its simplest form is 3/4. Find two different fractions equivalent to 3/4, each with a denominator between 12 and 30.

(2)

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

2/4, 7/8, 5/8

Answer: ___

(1)

---

6 What is 1/10 of 50?

Answer: ___

(1)

---

7 7/10 of the balloons in a jar is 56. How many balloons are in the jar?

Answer: ___

(2)

---

8 1/4 x 5 =

Answer: ___

(1)

---

9 2/6 x 7/8 =

Answer: ___

(1)

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10 Olu has 40 flowers. Olu gives 7/10 of them to a friend.

How many flowers does Olu give to the friend?

Answer: ___

(1)

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11 Find the missing numbers in each equivalent fraction.

(a) 3/7 = 12/? **(1)**

.....

(b) ?/40 = 7/8 **(1)**

.....

---

12 Which is greater, 4/7 or 5/9? Use cross multiplication to explain your answer, without using a calculator.

.....

.....

(2)

---

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

1/2, 2/3, 1/3

Answer: ___

(2)

---

14 Which is greater, 3/4 or 5/6? Show working to justify your answer.

.....

.....

(2)

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

1/10, 1/5, 7/10

Answer: ___

(2)

---

16 Convert between improper fractions and mixed numbers.

(a) Write 17/5 as a mixed number. **(1)**

(b) Write 4 3/7 as an improper fraction. **(1)**

---

17 Work out 1/10 of 60 m.

Answer: ___

(1)

---

18 3/5 x 6 =

Answer: ___

(1)

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19 Which fraction is equivalent to 3/4?

A: 12/16 B: 12/17 C: 7/8 D: 13/16

Write the letter.

Answer: ___

(1)

---

20 Hana eats 1/4 of a pie on Monday and 1/4 on Tuesday.

What fraction of the pie is left? Give your answer in its simplest form.

Answer: ___

(2)

---

21 Write 6 7/8 as an improper fraction.

Answer: ___

(2)

---

22 Write <, > or = in the box.

5/7 [ ] 6/10

Answer: ___

(2)

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23 Work out 2 3/4 + 1 5/8. Give your answer as a mixed number in its simplest form.

(3)

---

24 3/4 - 3/8 =

Answer: ___

(2)

---

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

3/4, 9/10, 1/4

Answer: ___

(2)

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26 How many quarters are there in 2 wholes?

Answer: ___

(1)

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

1/2, 5/6, 4/6

Answer: ___

(1)

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Mark scheme · 4.3 Fractions: Equivalence, Ordering and Calculation: Test Pack

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

Question 1

(a) 8 cao — **B1**

(a) Answer: **8**

(b) 3/4 cao — **B1**

(b) Answer: **3/4**

Question 2

smallest and largest correctly identified as 1/8 and 6/8 — **B1**

fully correct order 1/8, 3/8, 5/8, 6/8 cao — **B1**

Answer: **1/8, 3/8, 5/8, 6/8**

Question 3

both fractions correctly converted to a common denominator, e.g. 5/6 = 15/18 and 7/9 = 14/18 — **M1**

correct conclusion stated (15/18 > 14/18) cso — **A1**

Answer: **5/6 is greater than 7/9 (shown)**

Question 4

one correct equivalent fraction with denominator between 12 and 30, e.g. 15/20, 18/24 or 21/28 oe — **B1**

a second, different correct equivalent fraction with denominator between 12 and 30 oe — **B1**

Answer: **e.g. 15/20 and 21/28 (any two of 12/16, 15/20, 18/24, 21/28 accepted)**

Question 5

7/8, 5/8, 2/4 cao — **B1**

Answer: **7/8, 5/8, 2/4**

Question 6

5 cao — **B1**

Answer: **5**

Question 7

56 / 7 = 8 seen — **M1**

80 cao — **A1**

Answer: **80**

Question 8

1 1/4 or 5/4 cao — **B1**

Answer: **1 1/4**

Question 9

7/24 cao — **B1**

Answer: **7/24**

Question 10

28 cao — **B1**

Answer: **28**

Question 11

(a) 28 cao — **B1**

(a) Answer: **28**

(b) 35 cao — **B1**

(b) Answer: **35**

Question 12

correct cross products found, e.g. 4 x 9 = 36 and 5 x 7 = 35 — **M1**

4/7 is greater, because 36 > 35 oe — **A1**

Answer: **4/7 is greater than 5/9**

Question 13

converts to a common denominator or decimals — **M1**

1/3, 1/2, 2/3 cao — **A1**

Answer: **1/3, 1/2, 2/3**

Question 14

correct common denominator working, e.g. 3/4 = 9/12 and 5/6 = 10/12 — **M1**

5/6 is greater, with reason (10/12 > 9/12) oe — **A1**

Answer: **5/6 is greater than 3/4**

Question 15

converts to a common denominator or decimals — **M1**

7/10, 1/5, 1/10 cao — **A1**

Answer: **7/10, 1/5, 1/10**

Question 16

(a) 3 2/5 cao — **B1**

(a) Answer: **3 2/5**

(b) 31/7 cao — **B1**

(b) Answer: **31/7**

Question 17

6 m cao — **B1**

Answer: **6 m**

Question 18

3 3/5 or 18/5 cao — **B1**

Answer: **3 3/5**

Question 19

A cao — **B1**

Answer: **A**

Question 20

2/4 eaten seen — **M1**

1/2 cao — **A1**

Answer: **1/2**

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Question 21

method seen	M1
55/8 cao	A1

Answer: **55/8**

Question 22

common denominator seen	M1
> cao	A1

Answer: **>**

Question 23

2 3/4 converted to eighths, e.g. 2 6/8	M1
whole numbers and fractions combined correctly, e.g. 3 + 11/8	M1
4 3/8 cao	A1

Answer: **4 3/8**

Question 24

method seen	M1
3/8 cao	A1

Answer: **3/8**

Question 25

converts to a common denominator or decimals	M1
1/4, 3/4, 9/10 cao	A1

Answer: **1/4, 3/4, 9/10**

Question 26

8 cao	B1

Answer: **8**

Question 27

1/2, 4/6, 5/6 cao	B1

Answer: **1/2, 4/6, 5/6**

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