4.5 Introduction to Fractions: Test Pack

Calculators not allowed · about 60 minutes

Total Marks

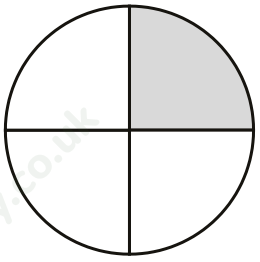
Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 Write the fraction for the shaded part of each shape, giving each answer in its simplest form. Shape A is a circle with 1 of 4 equal parts shaded. Shape B is a rectangle with 2 of 6 equal parts shaded.

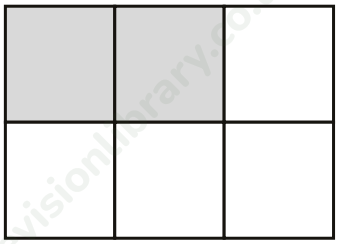
(a) Fraction shaded in Shape A **(1)**

Shape A



(b) Fraction shaded in Shape B, given in its simplest form **(1)**

Shape B



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2 3/5 of the pencils in a jar is 42. How many pencils are in the jar?

Answer: ___

(2)

---

3 A bar is divided into 4 equal parts. 1 parts are shaded.

What fraction of the bar is not shaded?

Answer: ___

(1)

---

4 Explain in one or two sentences why 2/4 is the same as 1/2. Use words or a diagram.

(2)

---

5 Mia says that 3/4 is bigger than 1/4. Is she correct? Write Yes or No.

Answer: ___

(1)

---

6 Work out 2/3 + 1/3.

Give your answer in its simplest form.

Answer: ___

(2)

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7 2/6 of the pebbles in a jar is 10. How many pebbles are in the jar?

Answer: ___

(2)

---

8 Sara has 10 counters. She gives 2/10 of them to Oliwia. How many counters does Oliwia get? Show your working.

(2)

---

9 Write 6/30 in its simplest form.

Answer: ___

(2)

---

10 Draw a pie split into 4 equal pieces. Shade 1/4 of the pie and write the fraction.

(1)

---

11 Work out 2/4 of 44.

Answer: ___

(1)

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12 Maya paints 4 out of 20 wooden blocks blue. What fraction are painted blue? Give the fraction in simplest form and explain why you simplified it.

(2)

---

13 What is 1/3 of 21?

Answer: ___

(1)

---

14 Write down the unit fraction for one equal part of a whole split into five equal pieces.

(1)

---

15 Which fraction is equivalent to 1/5?

A: 5/25 B: 6/25 C: 5/26 D: 6/10

Write the letter.

Answer: ___

(1)

---

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

1/3, 1/12, 9/12

Answer: ___

(2)

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17 Which fraction is the same as two thirds? Circle the correct answer: 4/6, 3/4, 1/3. Explain why you chose that fraction in one sentence.

- ☐ 4/6
- ☐ 3/4
- ☐ 1/3

---

18 7/8 = ___/32

Answer: ___

(1)

19 Write 12/16 in its simplest form.

Answer: ___

(2)

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

1/4, 4/5, 1/2

Answer: ___

(2)

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21 Poppy eats 6/12 of a pie on Monday and 3/12 on Tuesday.

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

Answer: ___

(2)

---

22 Write <, > or = in the box.

1/4 [ ] 3/9

Answer: ___

(2)

---

23 A ribbon is 9 cm long and divided into 3 equal parts. What is the length of one part as a fraction and in centimetres?

(2)

---

24 4/5 = 20/___

Answer: ___

(1)

---

25 Shade 2/4 of a rectangle. Then write the fraction in simplest form.

(1)

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26 A bar is divided into 10 equal parts. 5 parts are shaded.

What fraction of the bar is not shaded?

Answer: ___

(1)

---

27 1/2 = ___/10

Answer: ___

(1)

---

28 3/10 of the toy cars in a jar is 42. How many toy cars are in the jar?

Answer: ___

(2)

---

29 Work out 4/5 of 15.

Answer: ___

(1)

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Mark scheme · 4.5 Introduction to Fractions: Test Pack

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

Question 1

(a) 1/4 cao — **B1**

(a) Answer: **1/4**

(b) 1/3 cao after simplifying 2/6 — **B1**

(b) Answer: **1/3**

Question 2

42 / 3 = 14 seen — **M1**

70 cao — **A1**

Answer: **70**

Question 3

3/4 cao — **B1**

Answer: **3/4**

Question 4

statement that 2/4 equals 1/2 by halving or showing both are half of a whole (partial explanation) — **B1**

clear explanation or diagram showing 2 of 4 parts equal half or simplifying by dividing numerator and denominator by 2 oe — **B1**

Answer: **2/4 is the same as 1/2 because dividing top and bottom by 2 gives 1/2; both represent half the whole**

Question 5

Yes cao — **B1**

Answer: **Yes**

Question 6

converts to a common denominator — **M1**

1 cao — **A1**

Answer: **1**

Question 7

10 / 2 = 5 seen — **M1**

30 cao — **A1**

Answer: **30**

Question 8

10 × (2/10) or 10 ÷ 10 × 2 shown — **M1**

2 cao — **B1**

Answer: **2**

Question 9

divides numerator and denominator by a common factor — **M1**

1/5 cao — **A1**

Answer: **1/5**

Question 10

Correct shading of 1 of 4 equal parts and 1/4 written cao — **B1**

Answer: **1/4**

Question 11

22 cao — **B1**

Answer: **22**

Question 12

4/20 cao — **B1**

simplest form 1/5 and explanation, e.g. dividing numerator and denominator by 4 oe — **B1**

Answer: **1/5**

Question 13

7 cao — **B1**

Answer: **7**

Question 14

1/5 cao — **B1**

Answer: **1/5**

Question 15

A cao — **B1**

Answer: **A**

Question 16

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

9/12, 1/3, 1/12 cao — **A1**

Answer: **9/12, 1/3, 1/12**

Question 17

4/6 circled cao — **B1**

simple explanation, e.g. 4/6 = 2/3 when both top and bottom are divided by 2 oe — **B1**

Answer: **4/6**

Question 18

28 cao — **B1**

Answer: **28**

Question 19

divides numerator and denominator by a common factor — **M1**

3/4 cao — **A1**

Answer: **3/4**

Question 20

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

4/5, 1/2, 1/4 cao — **A1**

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

Question 21

9/12 eaten seen — **M1**

1/4 cao — **A1**

Answer: **1/4**

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Question 22

common denominator seen **M1**

< cao **A1**

Answer: **<**

Question 23

9 ÷ 3 = 3 or shows division into 3 equal parts **M1**

1/3 and 3 cm cao **B1**

Answer: **1/3 and 3 cm**

Question 24

25 cao **B1**

Answer: **25**

Question 25

1/2 cao after correct shading of 2 of 4 equal parts **B1**

Answer: **1/2**

Question 26

5/10 cao **B1**

Answer: **5/10**

Question 27

5 cao **B1**

Answer: **5**

Question 28

42 / 3 = 14 seen **M1**

140 cao **A1**

Answer: **140**

Question 29

12 cao **B1**

Answer: **12**

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