4.1 Fractions and Problem Solving: Test Pack

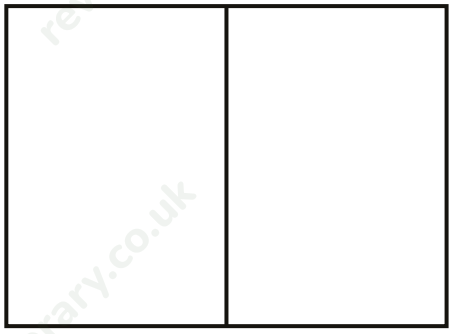
STA NC-KS1-MATHS-STA · Calculators not allowed · about 60 minutes

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 The rectangle below is split into 2 equal parts.

Shade 1 half of the rectangle.



(1)

---

2 Priya thinks of a number. Priya adds 19 and gets 20. What number did Priya think of?

Answer: ___

(1)

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3 Here are four number cards: 3, 4, 5, 8.

Which two cards add up to 11?

Answer: ___ and ___

(1)

---

4 How many quarters make a whole?

Answer: ___

(1)

---

5 Daisy has 13 marbles. Daisy is given 4 more and then loses 9. How many marbles does Daisy have now?

Answer: ___

(2)

---

6 Put these fractions in order, starting with the smallest: 3/4, 1/4, 1/2

(2)

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7 Bella has 6 books. Quinn gives Bella 9 more. How many books does Bella have now?

Answer: ___

(1)

---

8 Willow has 10 balloons. Willow is given 3 more and then loses 4. How many balloons does Willow have now?

Answer: ___

(2)

---

9 Bella has 4 flowers. Bella gives 1 to Reece. How many flowers does Bella have left?

Answer: ___

(1)

---

10 Here are four number cards: 5, 6, 8, 10.

Which two cards add up to 14?

Answer: ___ and ___

(1)

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11 How many different ways can you write 6 as the sum of two whole numbers, using 0? Count 1 + 5 and 5 + 1 as different ways.

Answer: ___

(2)

12 A square cake is cut into 2 pieces, but the pieces are not the same size.

Amelia says, 'One of the pieces is a half of the cake.'

Is Amelia correct? Explain your answer.

(2)

13 A sandwich is cut into 2 equal pieces. Noah eats 1 piece.

What fraction of the sandwich does Noah eat?

Answer: ___

(1)

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14 Quinn has 18 stickers. Quinn gives 16 to Bella. How many stickers does Quinn have left?

Answer: ___

(1)

---

15 Mia has 16 badges. Mia gives 12 to Jade. How many badges does Mia have left?

Answer: ___

(1)

---

16 Priya has 5 stars. Priya gives away 3 and then finds 1 more. How many stars does Priya have now?

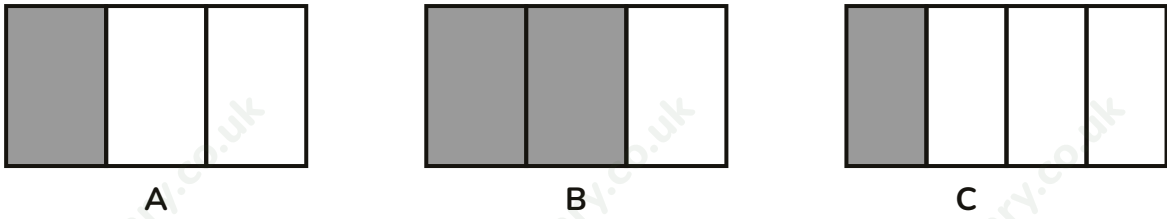
Answer: ___

(2)

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17 Look at shapes A, B and C below. Each shape is split into equal parts, and some parts are shaded.

Tick the shape that shows exactly one third shaded.



A B C

- ☐ A
- ☐ B
- ☐ C

---

18 Zara has 26 beads. Zara gives a half of them to a friend. How many beads does Zara give away?

Answer: ___

(1)

---

19 Here are four number cards: 5, 6, 8, 10.

Which two cards add up to 11?

Answer: ___ and ___

(1)

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20 Find a half of 14.

Answer: ___

(1)

---

21 Aaron has 10 marbles. Hana has 4 marbles. Who has more marbles, and how many more?

Answer: ___

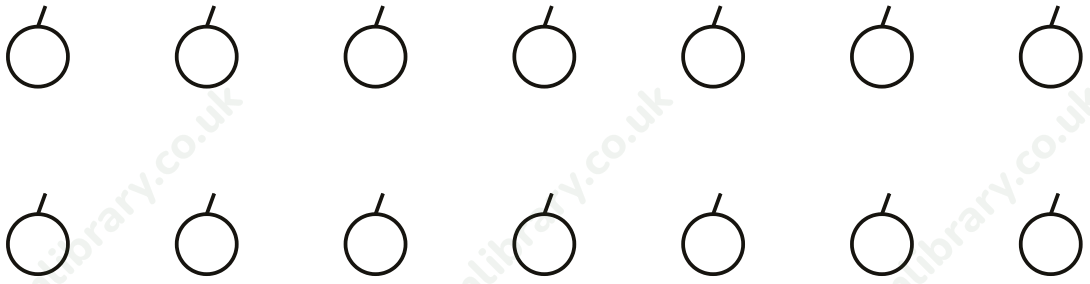
(1)

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22 There are 14 apples in a basket.

Find half of the apples.

How many apples is that? ___



(1)

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23 Grace has 4 marbles. Kofi has 12 marbles. Who has more marbles, and how many more?

Answer: ___

(1)

---

24 Two numbers add up to 12. One of the numbers is 11. What is the other number?

Answer: ___

(1)

---

25 What is a quarter of 20?

Answer: ___

(1)

---

26 Here are four number cards: 2, 3, 5, 6.

Which two cards add up to 9?

Answer: ___ and ___

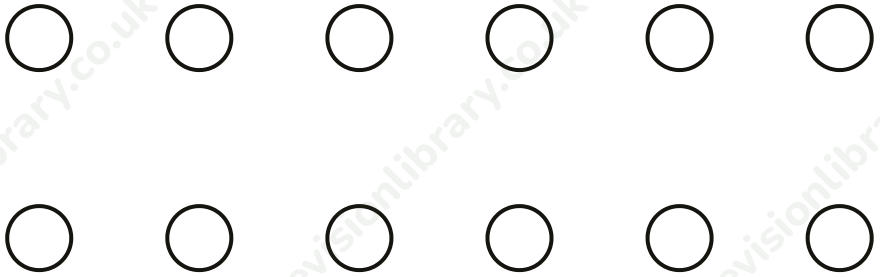
(1)

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27 There are 12 sweets in a bag.

Circle one third of the sweets.

How many sweets did you circle? ___



(1)

---

28 Willow has 5 stickers. Willow gives some to a friend and has 2 left.
How many stickers did Willow give away?

Answer: ___

(1)

---

29 Here are four number cards: 4, 5, 6, 8.

Which two cards add up to 14?

Answer: ___ and ___

(1)

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30 Ella shares 28 books equally between 4 friends.

Write the fraction of the books each friend gets, then work out how many books each friend gets.

Answer: ___ and ___

(2)

---

31 Mateo shares 6 cubes equally between 2 friends.

Write the fraction of the cubes each friend gets, then work out how many cubes each friend gets.

Answer: ___ and ___

(2)

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32 Kofi is 18 years old. Kofi's grandad is 60 years old. How many years older is Kofi's grandad?

Answer: ___

(1)

---

33 Here are four number cards: 3, 4, 6, 9.

Which two cards add up to 12?

Answer: ___ and ___

(1)

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Mark scheme · 4.1 Fractions and Problem Solving: Test Pack

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

Question 1

exactly 1 of the 2 equal parts shaded cao — **B1**

Answer: **1 of the 2 equal parts shaded**

Question 2

1 cao — **B1**

Answer: **1**

Question 3

3 and 8 cao — **B1**

Answer: **3 and 8**

Question 4

4 cao — **B1**

Answer: **4**

Question 5

13 + 4 = 17 seen — **M1**

8 cao — **A1**

Answer: **8**

Question 6

fractions compared correctly using a common whole (e.g. quarters) oe — **M1**

1/4, 1/2, 3/4 cao — **A1**

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

Question 7

15 cao — **B1**

Answer: **15**

Question 8

10 + 3 = 13 seen — **M1**

9 cao — **A1**

Answer: **9**

Question 9

3 cao — **B1**

Answer: **3**

Question 10

6 and 8 cao — **B1**

Answer: **6 and 8**

Question 11

lists the pairs from 0 + 6 to 6 + 0 — **M1**

7 cao — **A1**

Answer: **7**

Question 12

No (Amelia is not correct) — **B1**

correct reason given oe, e.g. the two pieces must be equal in size for each to be one half, but here the pieces are unequal — **B1**

Answer: **No - the two pieces must be equal in size for each piece to be one half; here they are unequal, so neither piece is a half.**

Question 13

1/2 cao — **B1**

Answer: **1/2**

Question 14

2 cao — **B1**

Answer: **2**

Question 15

4 cao — **B1**

Answer: **4**

Question 16

5 - 3 = 2 seen — **M1**

3 cao — **A1**

Answer: **3**

Question 17

A cao — **B1**

Answer: **A**

Question 18

13 cao — **B1**

Answer: **13**

Question 19

5 and 6 cao — **B1**

Answer: **5 and 6**

Question 20

7 cao — **B1**

Answer: **7**

Question 21

Aaron, 6 more cao — **B1**

Answer: **Aaron, 6 more**

Question 22

7 cao — **B1**

Answer: **7**

Question 23

Kofi, 8 more cao — **B1**

Answer: **Kofi, 8 more**

Question 24

1 cao — **B1**

Answer: **1**

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Question 25

5 cao **B1**

Answer: **5**

Question 26

3 and 6 cao **B1**

Answer: **3 and 6**

Question 27

4 cao **B1**

Answer: **4**

Question 28

3 cao **B1**

Answer: **3**

Question 29

6 and 8 cao **B1**

Answer: **6 and 8**

Question 30

1/4 seen **M1**

1/4 and 7 cao **A1**

Answer: **1/4 and 7**

Question 31

1/2 seen **M1**

1/2 and 3 cao **A1**

Answer: **1/2 and 3**

Question 32

42 cao **B1**

Answer: **42**

Question 33

3 and 9 cao **B1**

Answer: **3 and 9**

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