

# Paper 22

1-6 Round these numbers to complete the table.

	To nearest 1000	To nearest 10 000	To nearest 100 000
163 712	_____	_____	_____
349 493	_____	_____	_____

Solve these calculations.

7  $12 \times 14 =$  \_\_\_\_\_

8  $175 \div 3.5 =$  \_\_\_\_\_

9  $18 \times 2.5 =$  \_\_\_\_\_

10  $6.5 \times 9 =$  \_\_\_\_\_

Now solve these measures problems.

11  $683 \text{ g} + 836 \text{ g} =$  \_\_\_\_\_ kg

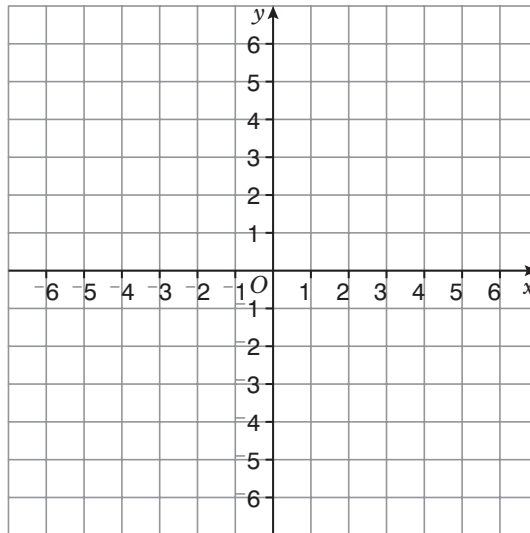
12  $23.6 \text{ kg} - 1540 \text{ g} =$  \_\_\_\_\_ kg

13  $6 \times 8.25 \text{ kg} =$  \_\_\_\_\_ kg

14  $5.79 \text{ kg} \div 6 =$  \_\_\_\_\_ g

15-18 Plot these **coordinates**: (5, 2) (-6, 2) (3, -2) (-4, -2)

Connect the points to make a four-sided figure.



19 What is the shape called? \_\_\_\_\_

20 How many lines of symmetry does it have? \_\_\_\_\_



Find the answers to these calculations.

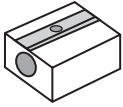
21  $(9 \times 3) - (9 \div 3) =$  \_\_\_\_\_

22  $(16 \times 4) - (16 \div 4) =$  \_\_\_\_\_

23  $(3 \times 16) \div 4 =$  \_\_\_\_\_

24  $\frac{3}{5}$  of 55 = \_\_\_\_\_

Pencil sharpener



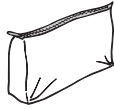
99p

Ruler



£1.19

Pencil case



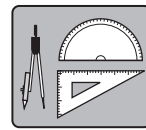
£2.85

Coloured pencils



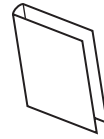
£4.75

Geometry set



£2.59

File



£2.59

Winston, Sarah, Sanjay and Emily went into the shop to buy some supplies for school.

25 Winston bought a ruler, a pencil case, and a file.  
How much change did he get from £10? \_\_\_\_\_

26 Sarah bought a pencil sharpener, a pencil case, and some coloured pencils. How much change did she get from £10? \_\_\_\_\_

27 Sanjay bought a pencil sharpener, a ruler, and a pencil case.  
How much change did he get from £20? \_\_\_\_\_

28 Emily bought some coloured pencils, a geometry set, and a file.  
How much change did she get from £20? \_\_\_\_\_

This bar chart shows the sorts of books in the class library.

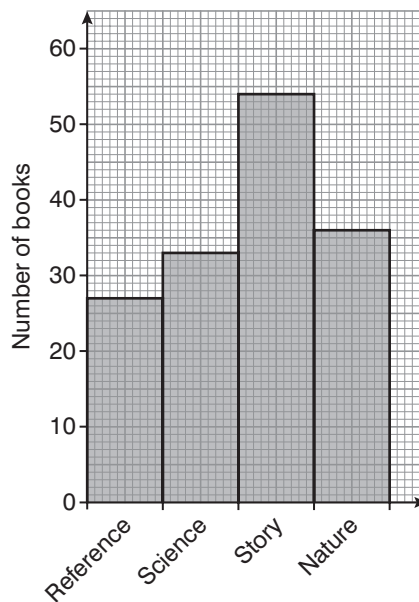
29 How many books are there altogether? \_\_\_\_\_

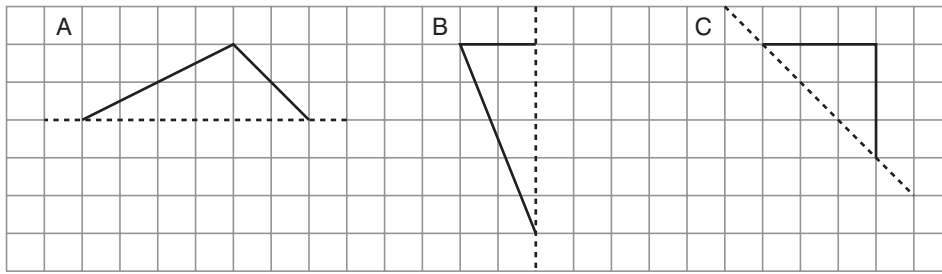
30 What % of the books are storybooks? \_\_\_\_\_

31 What % of the books are reference books? \_\_\_\_\_

32 What % of the books are nature books? \_\_\_\_\_

33 What % of the books are science or reference books? \_\_\_\_\_





34–36 The dashed lines are mirror lines. Draw in the mirror images of these shapes.

What is the full name of each shape that you have made?

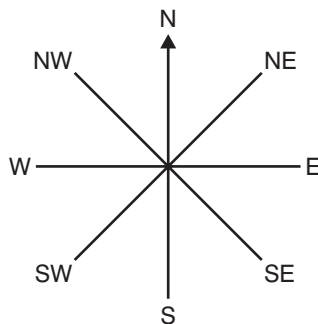
37 Shape A \_\_\_\_\_

38 Shape B \_\_\_\_\_

39 Shape C \_\_\_\_\_

40–45 Leo bought some sweets. He shared  $\frac{4}{9}$  of each packet of sweets with his class. Complete this table to show how many sweets he shared and how many were left.

Sweet	Starting number	Sweets shared	Sweets remaining
Tom thumb drops	252	_____	_____
Micro mints	495	_____	_____
Tiny tots	369	_____	_____



How many degrees do I turn if I move:

46 clockwise from NE to S? \_\_\_\_\_°

47 clockwise from SE to N? \_\_\_\_\_°

48 anti-clockwise from SW to NW? \_\_\_\_\_°

What fraction of a complete turn (in **lowest terms**) do I make turning:

49 clockwise from E to SW? \_\_\_\_\_

50 anti-clockwise from W to N? \_\_\_\_\_

Now go to the Progress Chart to record your score! Total **50**

# Paper 23

Write these decimals as **mixed numbers**. Write fractions in the **lowest terms**.

1 1.75 \_\_\_\_\_

2 2.05 \_\_\_\_\_

3 10.125 \_\_\_\_\_

Now write these **mixed numbers** as decimals.

4  $6\frac{3}{8}$  \_\_\_\_\_

5  $1\frac{7}{8}$  \_\_\_\_\_

6  $3\frac{9}{40}$  \_\_\_\_\_

Cable for my hi-fi speakers costs £3.75 per metre. I need four metres for one speaker and three metres for the other.

7 How much will I need to spend on new cable? \_\_\_\_\_

8 What is the next odd number after 987 that is exactly divisible by 7? \_\_\_\_\_

A local farmer has three breeds of cattle. For every 2 Dexters she has 3 Ayrshires and 4 Friesians. There are 117 cattle altogether. How many are:

9 Dexters? \_\_\_\_\_

10 Ayrshires? \_\_\_\_\_

11 Friesians? \_\_\_\_\_

12–13 The product of two numbers is 56 and the sum of the two numbers is 15.

What are the two numbers? \_\_\_\_\_ and \_\_\_\_\_

Solve these equations to find the values that the letters  $p$ ,  $q$  and  $r$  represent.

14  $3p - 4 = 23$

$p =$  \_\_\_\_\_

15  $7q \div 2 = 14$

$q =$  \_\_\_\_\_

16  $5r + 6 = 21$

$r =$  \_\_\_\_\_

Now use the values that you found above to solve this equation.

17  $5q + 2r - 2p =$  \_\_\_\_\_

18–23 Fill in the missing numbers in this multiplication square.

×	2	_____	7
3	6	_____	21
5	10	25	_____
_____	_____	40	_____

B10/B11

6

B2/B3

1

B3/B5

1

B 13

3

B2/B3

2

B 8

4

B 3

6

24–28 Here are some letters of the alphabet and the number of times each letter appears in a dictionary.

Complete this table, rounding each total to the nearest one hundred.

	Entries	Rounded to nearest 100
s	34 556	_____
c	26 239	_____
p	24 980	_____
m	17 495	_____
a	15 880	_____

5

29–34 Calculate the product and the sum of each pair of numbers in this table, and then calculate the number which is halfway between each sum and product.

	Product	Sum	Halfway
12 and 3	_____	_____	_____
17 and 5	_____	_____	_____

6

Solve these calculations.

35  $2^2 - 1^2 = \underline{\quad}$

36  $3^2 - 2^2 = \underline{\quad}$

37  $4^2 - 3^2 = \underline{\quad}$

38  $5^2 - 4^2 = \underline{\quad}$

Use the answers above to help you fill in the missing digits in these subtractions.

39  $94^2 - 93^2 = 18 \underline{\quad}$

40  $1002^2 - 1001^2 = 200 \underline{\quad}$

6

41 Take the number of days in February, in a leap year, from the number of days in August and then multiply this number by the number of days in November. What do you get? \_\_\_\_\_

42 Divide the number of days in February, in a non-leap year, by the number of days in a week. Then multiply this by the number of days in January. What do you get? \_\_\_\_\_

2

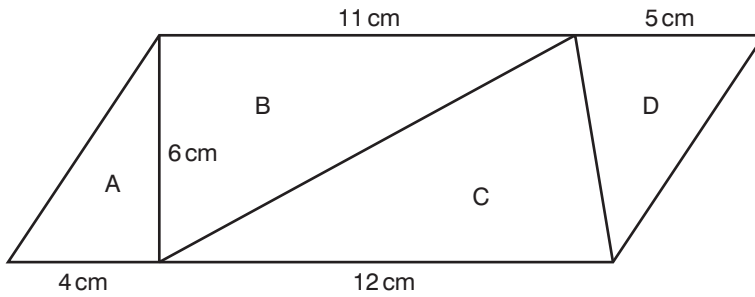
Find the answers to these fraction problems.

43  $\frac{9}{16} \times 64 = \underline{\quad}$

44  $\frac{4}{15} \times 90 = \underline{\quad}$

45  $\frac{3}{14} \times 77 = \underline{\quad}$

3



Calculate the area of the triangles A, B, C and D. They fit together to make a **parallelogram**.

46  $A = \underline{\hspace{2cm}}$

47  $B = \underline{\hspace{2cm}}$

48  $C = \underline{\hspace{2cm}}$

49  $D = \underline{\hspace{2cm}}$

50 What is the area of the **parallelogram**?  $\underline{\hspace{2cm}}$

*Now go to the Progress Chart to record your score!*

Total 50

B18/B20

B 2

5

## Paper 24

Calculate the answers.

1  $1003 - 8.7 = \underline{\hspace{2cm}}$

2  $15 - 1.9 = \underline{\hspace{2cm}}$

3  $795 - 9.1 = \underline{\hspace{2cm}}$

4  $863 - 1.1 = \underline{\hspace{2cm}}$

Solve these division problems.

5  $578 \div 34 = \underline{\hspace{2cm}}$

6  $810 \div 45 = \underline{\hspace{2cm}}$

7  $912 \div 16 = \underline{\hspace{2cm}}$

8  $414 \div 23 = \underline{\hspace{2cm}}$

9–14 A bookshop owner buys books from a wholesaler. She then adds 15% to the price paid before selling the books. Complete this table.

	Wholesale price	15%	Shop price
Book A	£6.80	$\underline{\hspace{2cm}}$	$\underline{\hspace{2cm}}$
Book B	£8.00	$\underline{\hspace{2cm}}$	$\underline{\hspace{2cm}}$
Book C	£10.60	$\underline{\hspace{2cm}}$	$\underline{\hspace{2cm}}$

B 10

4

B 3

4

B12/B2

6

15–20 Here is a timetable for a local bus service. Both buses take the same time to travel from one stop to the next. Enter the missing times for Bus B.

	Bus A	Bus B
Tetbury	11:17	14:52
Westonbirt	11:24	___ : ___
Willesley	11:26	___ : ___
Didmarton	11:29	___ : ___
Yate	11:46	___ : ___
Pucklechurch	12:00	___ : ___
Bath	12:35	___ : ___

6

What are these fractions as decimals?

21  $\frac{9}{10}$

\_\_\_\_\_

22  $\frac{7}{25}$

\_\_\_\_\_

23  $\frac{11}{20}$

\_\_\_\_\_

24  $\frac{3}{8}$

\_\_\_\_\_

4

What is the equivalent percentage for each of these fractions?

25  $\frac{49}{50}$

\_\_\_\_\_ %

26  $\frac{3}{50}$

\_\_\_\_\_ %

27  $\frac{21}{25}$

\_\_\_\_\_ %

28  $\frac{12}{75}$

\_\_\_\_\_ %

4

Circle the correct answer to each of these calculations.

29  $3.5 \times 300 =$     950        1000        1050        1100

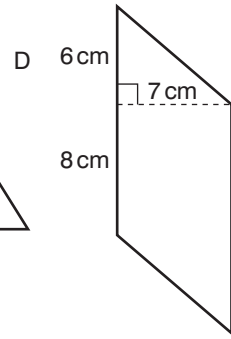
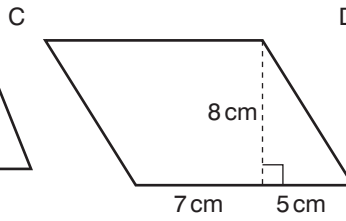
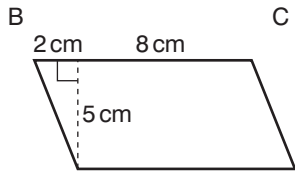
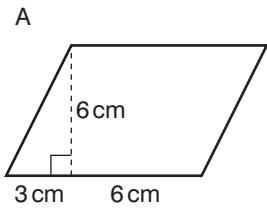
30  $70 \div 4 =$         16         $16\frac{1}{2}$         17         $17\frac{1}{2}$

31  $1003 - 13.9 =$     989.1        998.1        898.1        889.1

32  $\frac{2}{3} + \frac{5}{6} =$          $1\frac{1}{6}$          $1\frac{1}{2}$          $1\frac{3}{4}$          $1\frac{2}{9}$

33  $0.5 \times 0.5 =$     0.0025        0.025        0.25        2.5

5



Calculate the areas of these **parallelograms**.

34 **Parallelogram A** has an area of \_\_\_\_\_ .

35 **Parallelogram B** has an area of \_\_\_\_\_ .

36 **Parallelogram C** has an area of \_\_\_\_\_ .

37 **Parallelogram D** has an area of \_\_\_\_\_ .

Calculate the answers to these multiplication problems.

38  $163 \times 12.6 =$

\_\_\_\_\_

39  $205 \times 2.5 =$

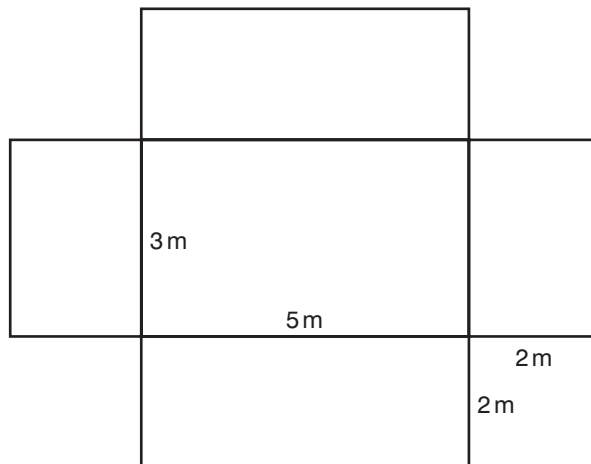
\_\_\_\_\_

40  $437 \times 0.7 =$

\_\_\_\_\_

41  $909 \times 1.9 =$

\_\_\_\_\_



42 What is the volume of the fish tank that is represented by this net? \_\_\_\_\_

43 The **mean** of these numbers is 5. What is the value of *a*?

- 2    3    8    4    *a*    7    6



44 Sweet Tooth confectioners are going to mark their 50th anniversary by producing a limited edition chocolate bar. It will be 0.65 m long, 2 cm high and 1 cm deep.

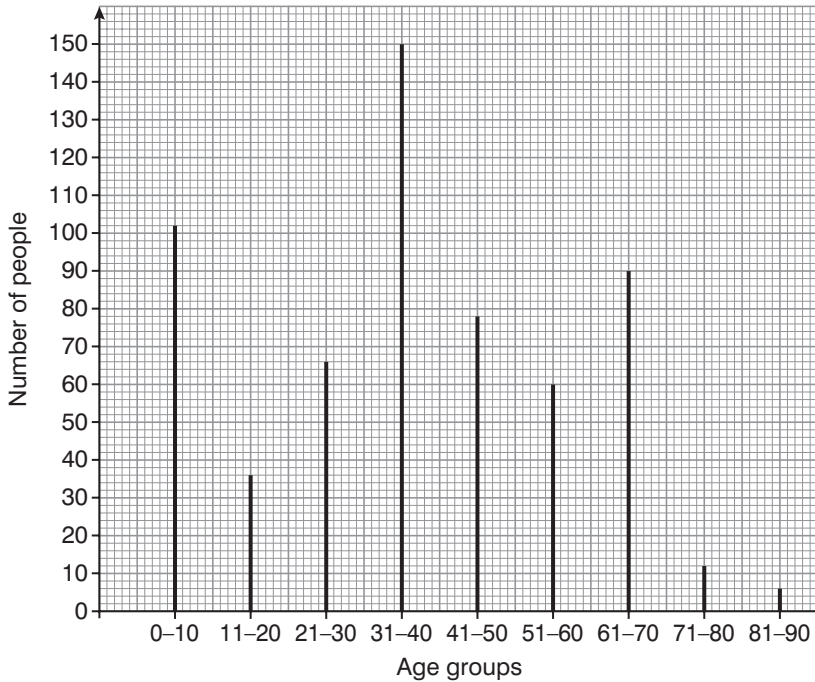
What will be the volume of the chocolate bar? \_\_\_\_\_ m<sup>3</sup>

B 22

1

B26/B2

B 12



This is a bar-line chart showing the number of people, in different age groups, on a train trip. What percentage of the passengers was in each of these age groups?

45 11-20 \_\_\_\_\_ %

46 31-40 \_\_\_\_\_ %

47 71-80 \_\_\_\_\_ %

48 What is the lowest percentage on the chart? \_\_\_\_\_ %

49 What is the percentage of the 51-60 and 61-70 age groups combined? \_\_\_\_\_ %

50 What is the difference in percentage between the youngest and the oldest age groups? \_\_\_\_\_ %

6

**Now go to the Progress Chart to record your score! Total 50**