

Materials for assessing adult numeracy



1

The population of Wales is approximately $2\frac{1}{2}$ million.
Write this in numbers in the box.

2

What is the value of the 7 in this number? Write your answer in words.

3700206

3

What is the next number after 3 099 999?

4

How much profit or loss did this company make over the years from 1999 – 2001? Write your answer in the box. Show whether it is a profit or loss by writing a plus sign or a minus sign.

Year	Profit/Loss (£)
1999	+ 125000
2000	– 1385000
2001	+ 690000

5

The temperature is -2°C . It rises by 5°C . What is the temperature now?
Circle the correct choice.

7°C 0°C -7°C 3°C -3°C 5°C 2°C

6

Is 8 a factor of 82? Tick yes or no.

yes no

7 Circle the number that is **not** a factor of 12.

2 3 4 9 12

8 Is 49 a multiple of 7? Tick yes or no.

yes no

9 Circle the number that is **not** a multiple of 6.

18 26 42 60

10 What is the next prime number after 13?

11 Estimate how much money Jim would need to buy 19 items at £2.99 each. You do not need to give the exact answer.

£

12 Estimate the answer to this problem. You do not need to give the exact number.

$$\frac{2999 \times 98}{21} = \text{ }$$

TOTAL

1

In a factory of 600 people, the ratio of male workers to female workers is 3 : 2. How many workers are female?

2

There are 12 000 supporters at a football match. 10 000 are home supporters and the rest are away supporters. Complete the ratio of home supporters to away supporters.

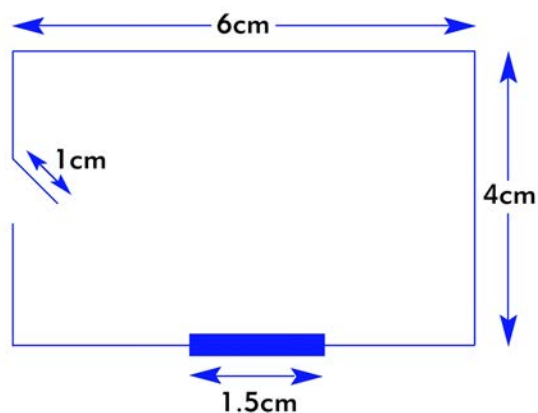
3

Fill in the missing measurement.

Scale	Size drawn	Actual size
1:5	250m	1250m
1:10	125cm	1250cm
1:50	110mm	<input type="text" value="_____"/> mm

4

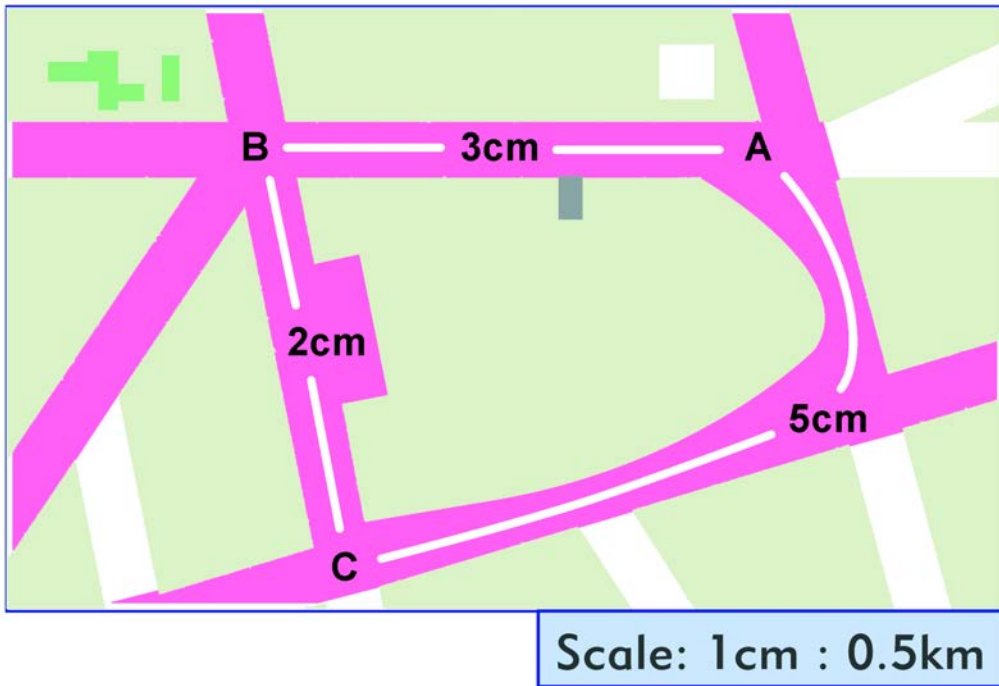
What is the actual length of the room in metres?

 m


Scale:
1 : 100

5

How far is the walk in kilometres?



km

TOTAL

1

$$2(4 + 3) = \boxed{}$$

2

$$13 - (2 \times 5) = \boxed{}$$

3

Find the value.

$$a = 3 \quad b = 4$$

$$2a + 5b = \boxed{}$$

4

Tick the box to show which formula means the same as:

perimeter = $2(l + w)$.

$$2l + w \quad \square$$

$$l + l + w + w \quad \square$$

$$2 + l + w \quad \square$$

$$2 \times l \times w \quad \square$$

5

A car travels 180 miles in 3 hours. Use this formula to work out the average speed of the car.

$$\text{Average Speed} = \frac{d}{t} \quad \boxed{} \text{ mph}$$

TOTAL

1 Circle the largest fraction.

$$\frac{2}{3} \quad \frac{2}{15} \quad \frac{2}{5}$$

2 Circle the common denominator for these fractions.

$$\frac{1}{3} \quad \frac{1}{4} \quad \frac{1}{8}$$

12 24 16 8

3 Find the equivalent.

$$\frac{4}{5} = \frac{\square}{20}$$

4 Find the equivalent.

$$\frac{5}{8} = \frac{15}{\square}$$

5 Write each of these as a common fraction, in the lowest terms.

$$0.25 = \frac{\square}{\square}$$

$$3\% = \frac{\square}{\square}$$

13

Calculate to the lowest terms.

$$\frac{2}{5} + \frac{3}{10} = \frac{\boxed{}}{\boxed{}}$$

14

Calculate to the lowest terms.

$$\frac{7}{12} - \frac{2}{6} = \frac{\boxed{}}{\boxed{}}$$

15

Three people took different portions of a cake. One person had $\frac{1}{2}$ the cake. One person had $\frac{1}{3}$ of the cake. What fraction was left for the third person?

$$\frac{\boxed{}}{\boxed{}}$$

TOTAL

1 Round this number to 1 decimal place.

15.36

2 Round this number to 2 decimal places.

22.338

3 $4.076 + 13.06 + 324.5$

4 $6 - 3.241$

5 40.02×6

6 12.6×0.5

7 $1.8 \div 0.9$

TOTAL

1

A car costs £12 500.
The cost is increased by 5%.

What is the new price
of the car?



£

2

By how much
has the price of
the house been
reduced?

Reduced for quick sale: 15% off price shown

£120,000 4 bedroom semi, 3 receptions,
kitchen, bathroom, cloakroom,
utility room, garage, garden.


£

3

On the night shift, a line produces 50 fridges.
Sal packed 15 of them into boxes.
What percentage of the total is this?

%

Tyre Fitters



	£	p
4 Tyres GTX 7 @£56	244	00
Fitting & balancing	36	00
Sub-total :	280	00
VAT 17.5%		
Total		

£

£

4

Work out the total cost of this bill, including VAT.

TOTAL

*Call your tutor before you do this task.

Use a calculator to work out the next 5 sums.

Write your answers in the boxes.

1 Use the memory key to answer this question.

$(5 \times 8) + (4 \times 5)$

2 Use the % key to answer this question.

What is 78% of £900? £

3 What is $\frac{5}{8}$ of 1500?

4 What is $\frac{2}{3}$ as a decimal to 3 decimal places?

5 Use the % key to find VAT at 17.5% on £2500.80.

£

TOTAL

*A calculator can be used only for this section.

1 Write 380 seconds as minutes and seconds.

mins	secs
------	------

2 How many minutes in $4\frac{1}{4}$ hours?

mins

3 Write 400 minutes as hours and minutes.

hrs	mins
-----	------

4 How many hours in $4\frac{1}{2}$ days?

hrs

5 You need to get to Kilverley by 1.30pm. Which is the latest bus you can catch from Harbet bus station to get there on time? Write the time in the box.

--

Harbet - Higton via Chalgate Green			Service 901
<i>Mondays to Fridays*</i>			
Harbet Bus Station	0851	1051	1255
Seven Sisters	0857	1057	1302
Chalgate Green	0903	1103	1308
West Kent Street	0908	1108	1313
Coach Inn	0913	1113	1318
Kilverley	0920	1120	1326
Drench Marsh	0931	1131	1337
Higton Bus Station	0943	1143	1349

*Not Bank Holidays, Good Friday or Boxing Day.

6

How long does it take to get from Harbet Bus Station to the Coach Inn?
Write the time taken in minutes in the box.

Harbet - Higton via Chalgate Green			
<i>Mondays to Fridays*</i>			
Harbet Bus Station	0851	1051	1255
Seven Sisters	0857	1057	1302
Chalgate Green	0903	1103	1308
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*Not Bank Hoildays, Good Friday or Boxing Day.

mins

7

Look at this calendar for May.
You finish work on Friday 10th May and have 2 weeks' holiday.
What is the date of the Monday you start back at work?

May					
Mon		6	13	20	27
Tue		7	14	21	28
Wed	1	8	15	22	29
Thur	2	9	16	23	30
Fri	3	10	17	24	31
Sat	4	11	18	25	
Sun	5	12	19	26	

TOTAL

Look at the currency chart.

1

A cup of coffee in the USA is approximately \$2. What would this be in pounds sterling (£)?

£

2

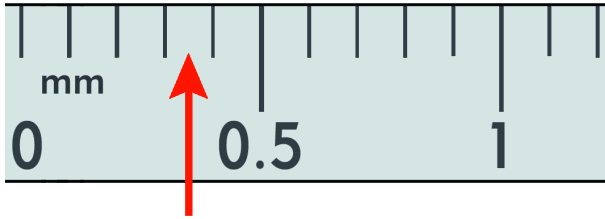
You need to change £200 into euros. How many euros will you get?

€

Pound Sterling (£1=)	
\$	1.41
€	1.62
Yen	188.55
Dollar (\$1=)	
£	0.71
€	1.15
Yen	133.55
Euro (€1=)	
\$	0.87
£	0.62

TOTAL

1 Write down this measurement.



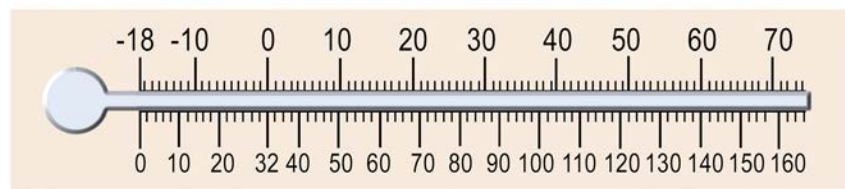
2 How many 1.5 metre shelves can you get from a 4.2 metre length of wood?



3 A gallon is about 4.5 litres. Estimate this amount of petrol to the nearest whole gallon.



4 Label the correct side of the thermometer with F (Fahrenheit) and C (Celsius).



5

Look at the thermometer in question 4. The temperature in Spain is 38°C . What is this in Fahrenheit?

 °F

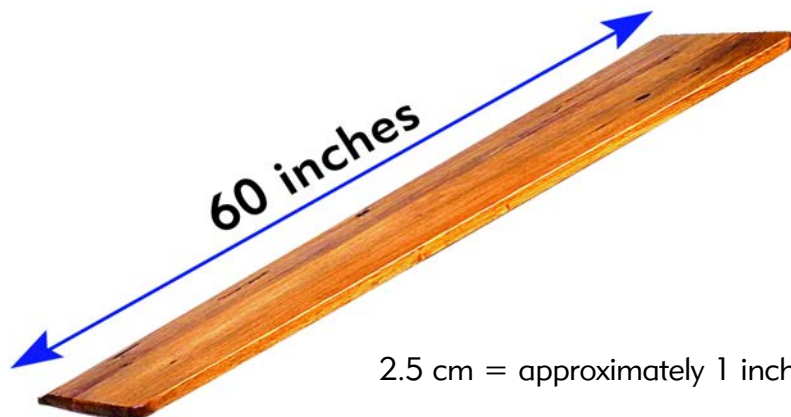
6

The area of a wall is 24 square metres. How many 5 litre tins of paint will be needed to cover this wall?



7

2.5 cm is approximately one inch. A piece of wood measures 60 inches. How long is this in cm?

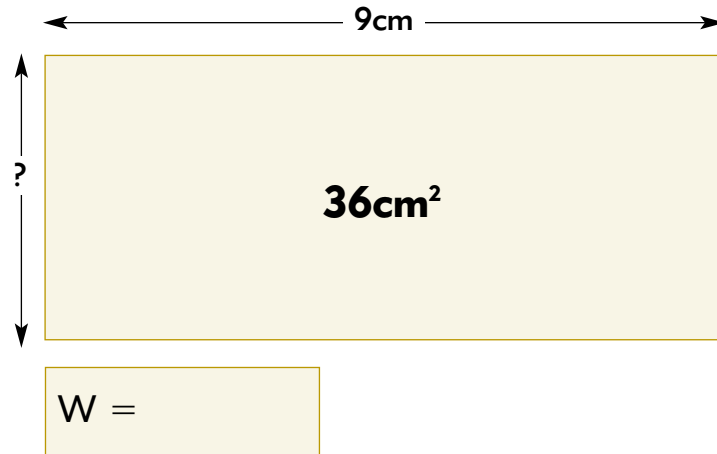

 cm

TOTAL

1

Write the formula to find the width of a rectangle, using these abbreviations.

- + = add
- cm = centimetre
- r = radius
- x = multiply
- a = area
- l = length
- w = width



2

Work out the width of the rectangle in question 1 using the correct formula.

w = cm

3

The formula to find the area of a triangle is $\frac{1}{2} b \times h$

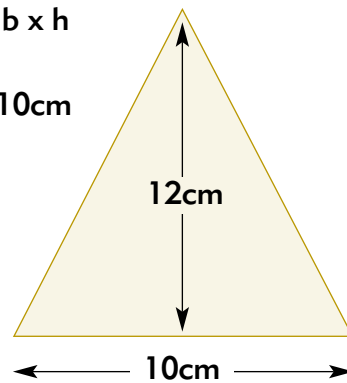
Find the area of this triangle where the base is 10cm and the height is 12cm.

$A = \frac{1}{2} b \times h$

b = 10cm

h = 12cm

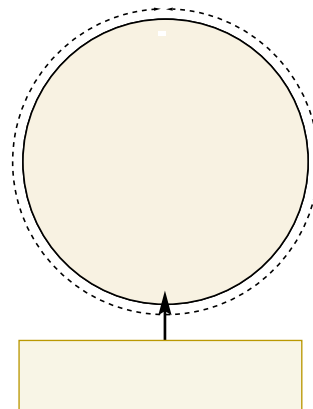
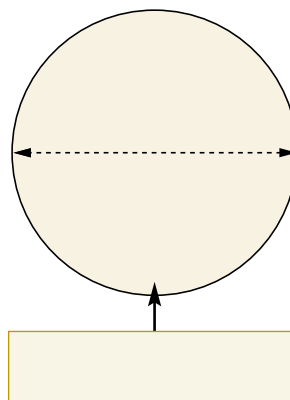
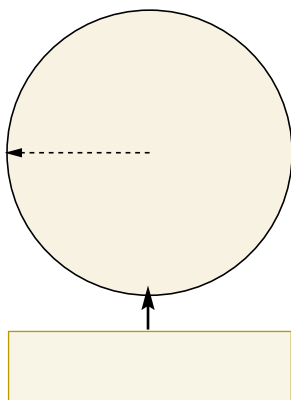
A = cm²



4

Write the names of these parts of the circle in the correct boxes.

- circumference
- diameter
- radius



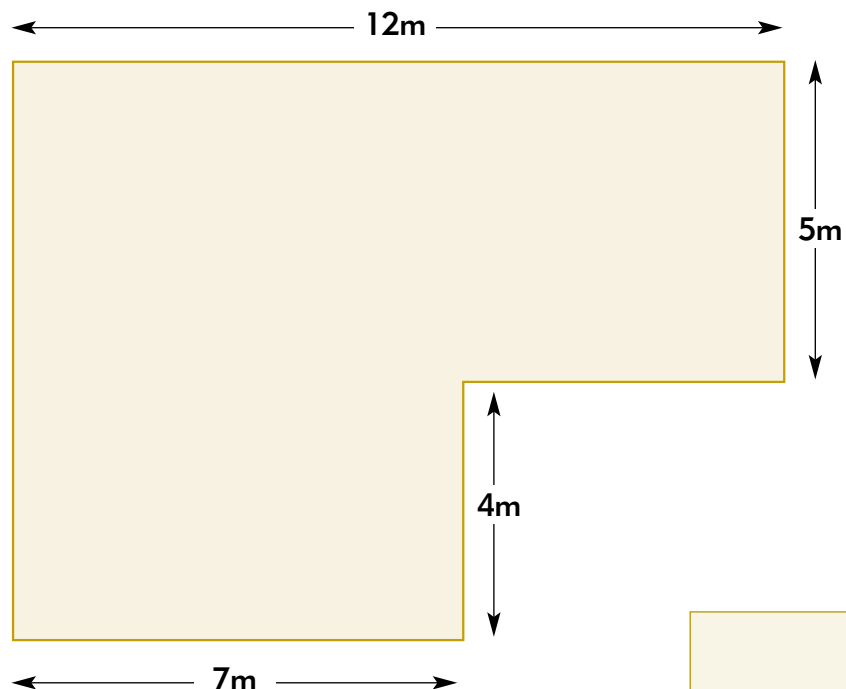
5 The radius of a circle is 20cm. What is the diameter?

6 The formula to find the area of a circle is πr^2 .
Where π (pi) is 3.14, find the area of a circle with a radius of 20cm.

7 The formula to find the circumference of a circle is
 $C = \pi d$, where pi is 3.14 and d is the diameter.
Find the circumference of a circle where the diameter is 30cm.

C =

8 Find the area of this room using the formula $A = l \times w$.



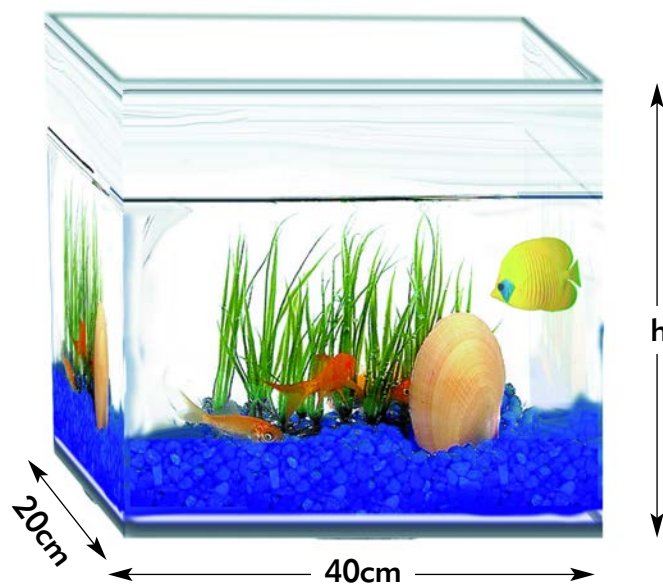
9

Find the approximate area of this flower bed using the measurements shown and the formula $A = l \times w$.



10

A fish tank has a volume of 24000cm^3 , a length of 40cm , and a width of 20cm . Using the formula $V = l \times w \times h$, find the height of the tank.



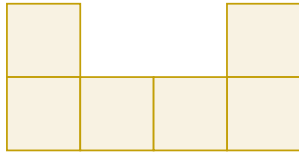
H = cm

TOTAL

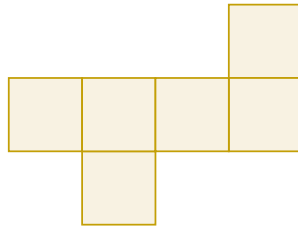
1

Which of these nets represents a 3-D cube? Tick the correct shape.

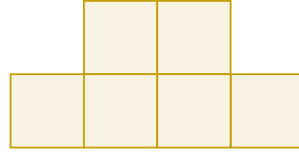
A



B



C



2

Tick the statement that is the correct meaning of the words **parallel lines**.

Lines that are straight

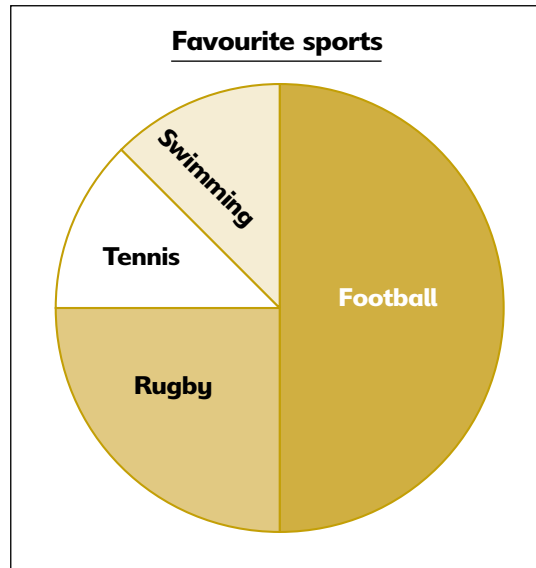
Lines that are always the same distance apart

Lines that cross

Lines that converge

TOTAL

32 people were asked to name their favourite sport. The pie chart shows the results.

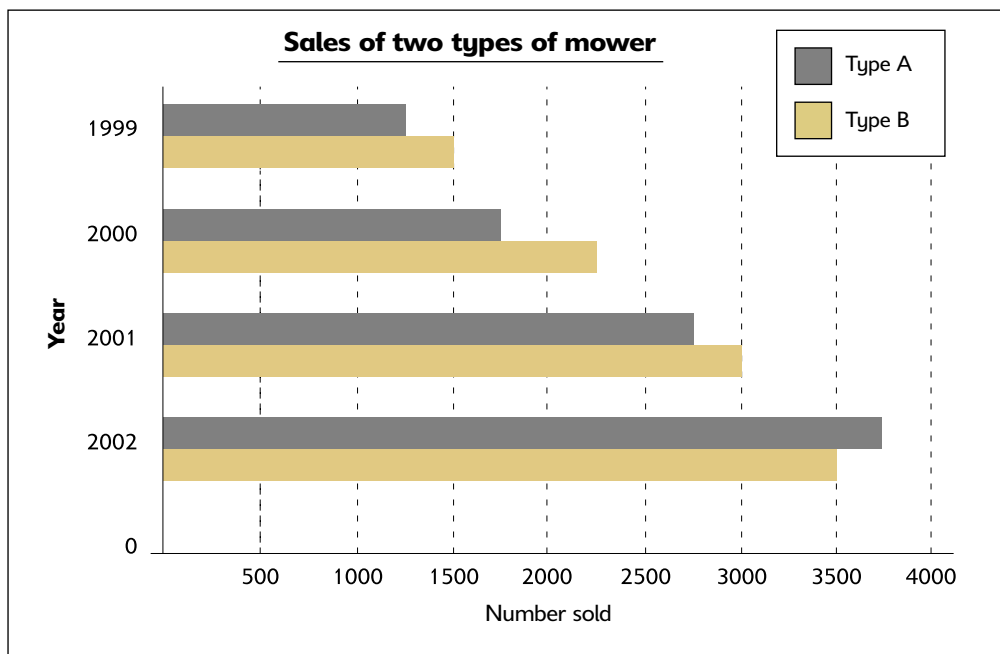


1

What fraction chose swimming?

2

How many people chose tennis?

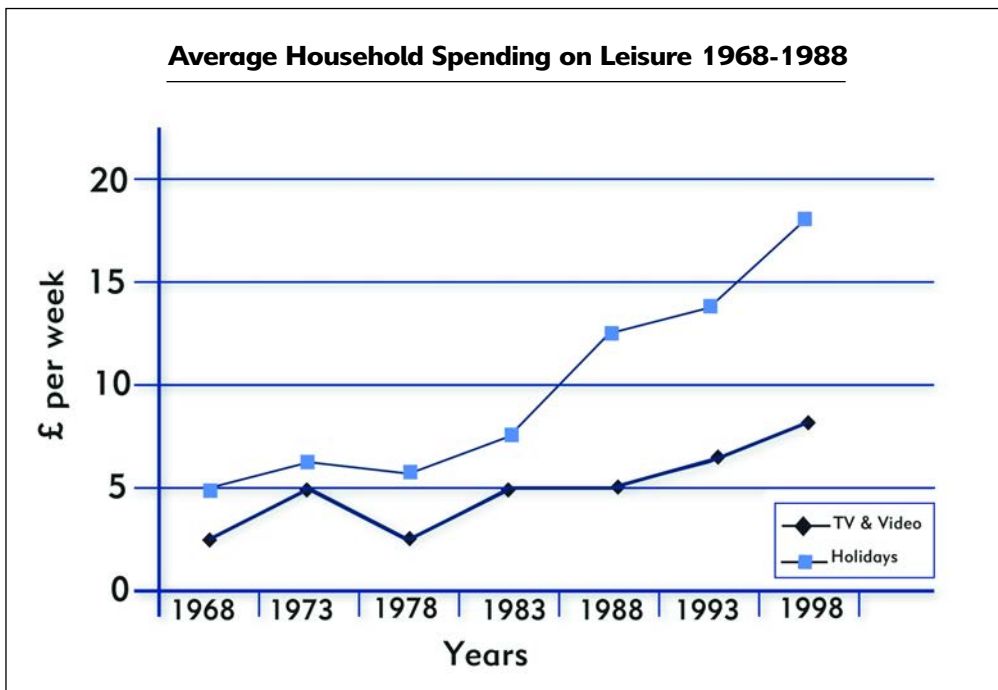


3

How many mowers of type B were sold in the year 2001?

4 How many more mowers of type A were sold in the year 2002 than in 1999?

5 Which type of mower sold best from the year 1999 to 2002?



Source: Family Expenditure Survey, Office for National Statistics

6 Which year did people spend about the same amount on holidays as they did on buying TVs and videos?

7 What have people spent more money on in the last few years – holidays or TVs and videos? Tick the correct answer.

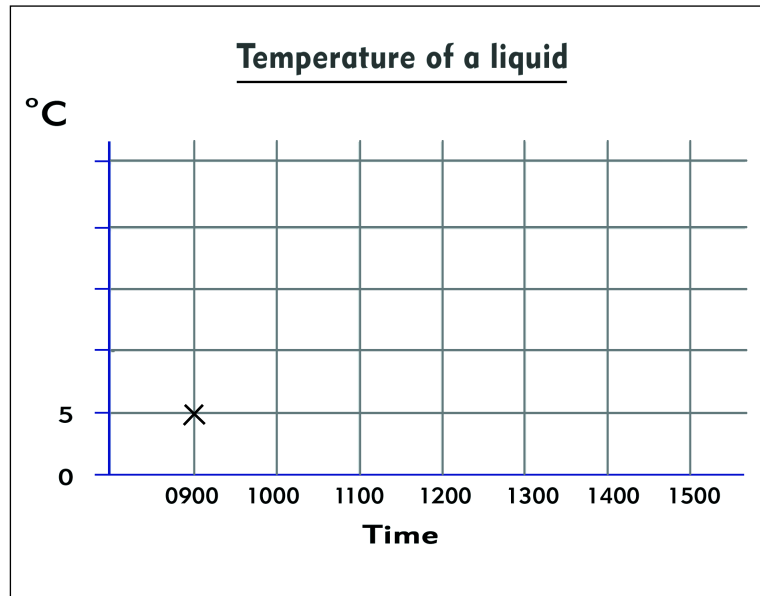
Spending more on holidays

Spending more on TVs and videos

TOTAL

1

Time	°C
0900	5
1000	10
1100	20
1200	20
1300	20
1400	25
1500	15



Complete the scale on the vertical axis of the graph.

2

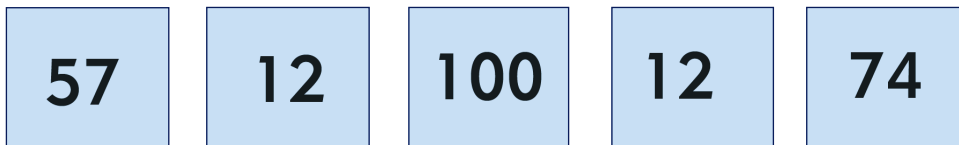
Enter the data to make a line graph. The first one is done for you.

3

Look at the graph. For how many hours did the temperature remain constant at 20°C?

hrs

TOTAL



These are the numbers of TVs produced on a production line in a factory in one week.

1 Find the mean (average) number of TVs produced.

mean =

2 Find the mode.

mode =

3 Find the median.

median =

4

Four workers earn different hourly rates of pay.

What is the average hourly rate?

Department A	
Worker 1	earns £4.50 an hour
Worker 2	earns £5.00 an hour
Worker 3	earns £5.10 an hour
Worker 4	earns £6.00 an hour

5

In a warehouse, out of 4000 glasses 20 were found to be broken. A glass is picked at random – what is the chance that it is broken?

Circle the correct answer.

$$\frac{1}{4000} \quad \frac{1}{200}$$

$$\frac{1}{20} \quad \frac{20}{4000}$$

6

A coin is thrown in the air 6 times and each time it lands heads up. What is the chance of it being heads the next time it is thrown?

Circle the correct answer.

$$\frac{2}{1} \quad \frac{6}{1} \quad \frac{1}{2} \quad \frac{1}{1}$$



TOTAL

