

**Key skills application of number
Adult numeracy
Level 2**

Practice Test Paper K

YOU NEED

- This test paper
- An answer sheet

You may NOT use a calculator

You may use a bilingual dictionary

Do NOT open this paper until you are told to do so by the supervisor

There are 40 questions in this test

Total marks available: 40

Try to answer ALL the questions

YOU HAVE 1 HOUR AND 15 MINUTES TO FINISH THE TEST

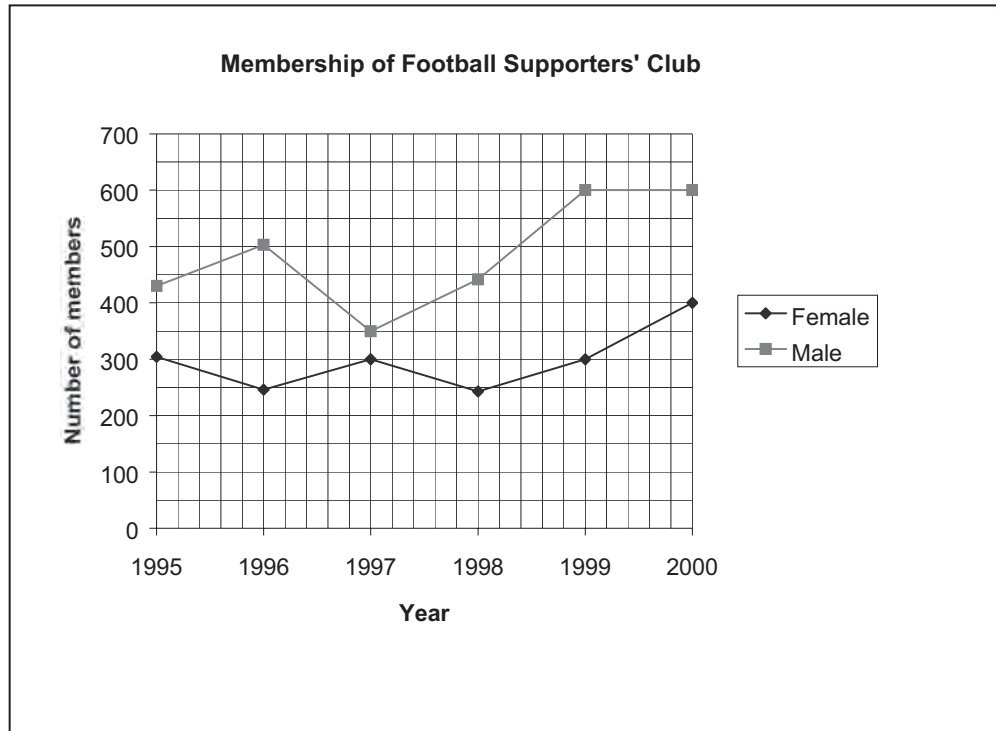
INSTRUCTIONS

- Make sure your personal details are entered correctly on the answer sheet
- Read each question carefully
- Follow the instructions on how to complete the answer sheet
- At the end of the test hand in the question paper, your answer sheet and all notes to the supervisor

REMEMBER: YOU HAVE 1 HOUR AND 15 MINUTES TO FINISH THE TEST

Note for learners and tutors. This is a practice test that has been put together using questions similar to those that you would find in a "live" Key skills application of number or Adult numeracy test. The layout of the test is also the same as that used for a live test.

- 1 The graph shows the number of people in a football supporters' club for the years 1995 - 2000



Find, to the nearest 50, the total number of members in 1998.

- A 450
- B 650
- C 700
- D 750

2 A lorry driver's timesheet for 20 days is

Hours Worked	Monday	Tuesday	Wednesday	Thursday	Friday
Week 1	8	7	9	6	7
Week 2	9	7	7	7	6
Week 3	6	7	8	7	7
Week 4	9	8	7	7	6

The driver is paid

£17.50 per hour

£65 per day for expenses

Which calculation gives his total pay (including expenses) for Week 1?

- A $(5 \times £17.50) + (5 \times £65)$
- B $(37 \times £17.50) + £65$
- C $(£17.50 + £65) \times 37$
- D $(37 \times £17.50) + (5 \times £65)$

3 The table shows the number of people who go to see a play one weekend.

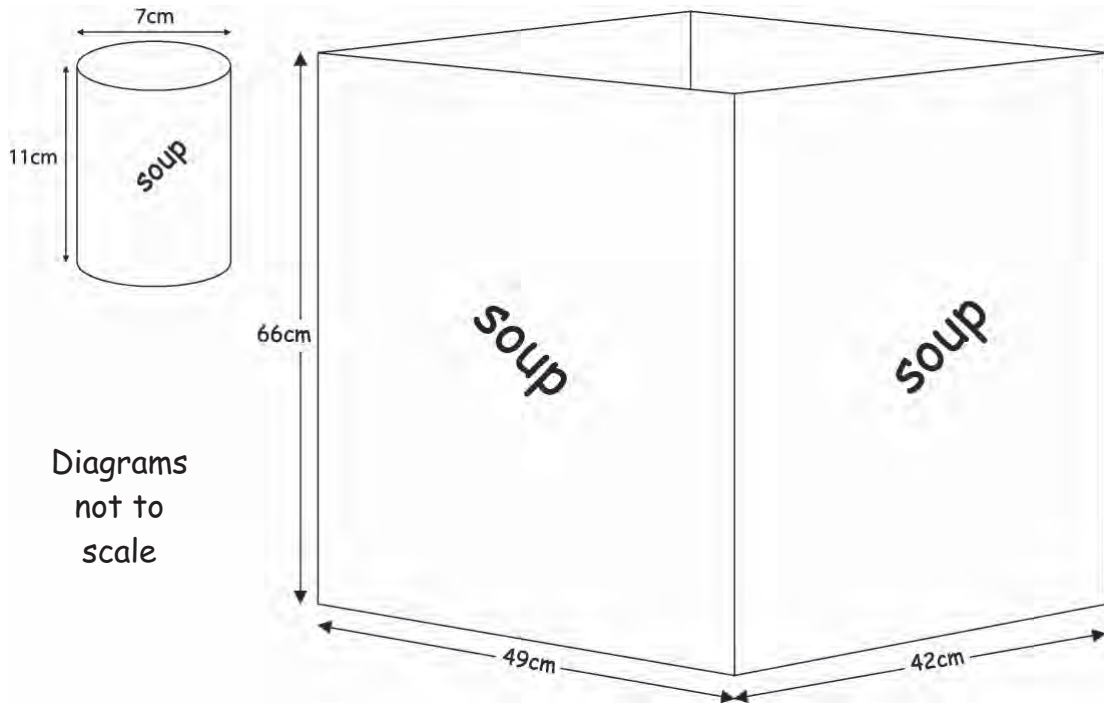
	Saturday	Sunday	Total
Adults	140	208	348
Children	76	80	156
Total	216	288	504

Tickets for the play cost £3 for an adult and £1.50 for a child.

How much is taken for tickets sold for Sunday's performance?

- A £534
- B £552
- C £744
- D £1278

- 4 Cans of soup are 7 centimetres in diameter and 11 centimetres high. The diagram shows a can and the box that the cans are packed in.



Diagrams
not to
scale

What is the maximum number of cans that fit in the box?

- A 242
 - B 244
 - C 252
 - D 294
- 5 There are 105 calories in an ounce of cheese.

1 ounce = 30grams

How many calories are there in 100 grams of cheese?

- A 205 calories
- B 235 calories
- C 315 calories
- D 350 calories

- 6 A chef wants to cook a piece of meat weighing 4 kilograms. He knows he must allow 20 minutes per kilograms plus an extra 25 minutes. He works out that the meat will take 105 minutes to cook.

How can he check if this is correct?

A $\frac{105 - 25}{20}$

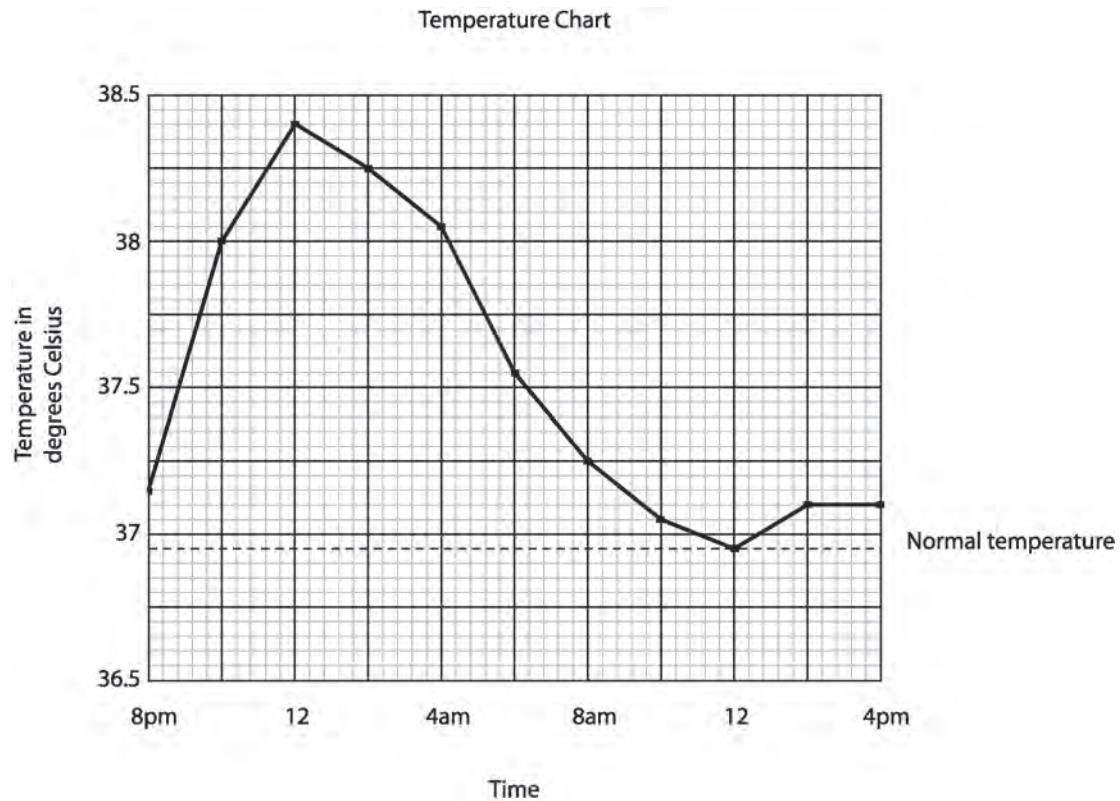
B $\frac{105 - 25}{20}$

C $105 - 25 \div 20$

D $20 \times 25 \div 105$

Questions 7 to 9 are about a temperature chart.

The chart shows the temperature of a patient following a hospital operation at 8pm.



7 What was the patient's temperature at 0400?

- A 37.1°C
- B 37.55°C
- C 38.05°C
- D 38.1°C

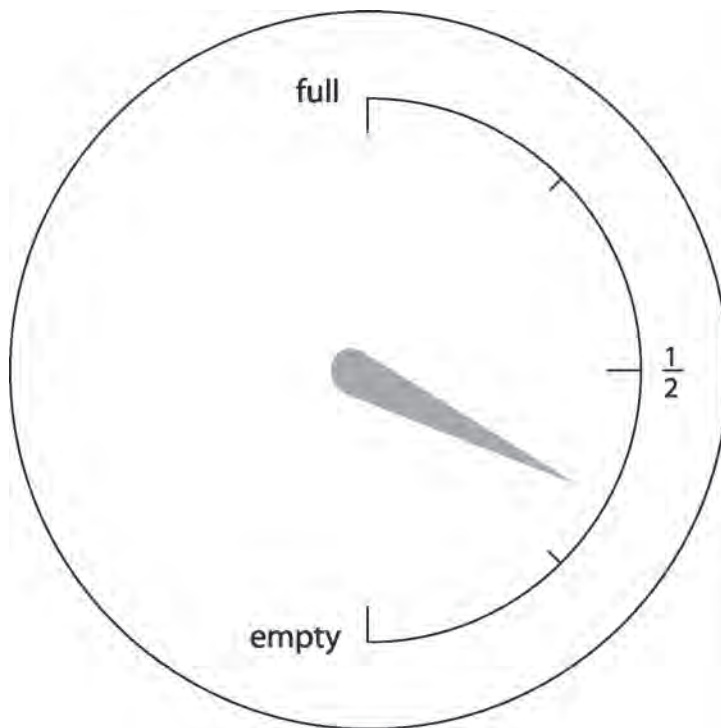
8 How long after the operation did it take for the patient's temperature to reach normal temperature?

- A 8 hours
- B 9 hours
- C 12 hours
- D 16 hours

9 What was the range of the patient's temperature in the time shown on the chart?

- A 0.05°C
- B 1.45°C
- C 1.55°C
- D 2.55°C

10 The diagram shows a car petrol gauge. The car's fuel tank holds 50 litres.



Which is the best estimate of the fuel **left** in the tank?

- A 10 litres
- B 15 litres
- C 30 litres
- D 35 litres

Question 11 and 12 are about aeroplanes.

- 11 An empty aeroplane weighs 150 tonnes.
The ratio of the maximum take off weight to the empty weight is 2.2 : 1

What is the maximum take off weight?

- A 68 tonnes
- B 70 tonnes
- C 300 tonnes
- D 330 tonnes

- 12 The temperature in an aeroplane is 20 °C.
At cruising height the outside temperature is -38 °C.

The temperature difference between the outside and inside of the aircraft is

- A -1.9 °C
- B -18 °C
- C 18 °C
- D 58 °C

13 This is the Bolton-Bury, Bury-Bolton bus timetable.

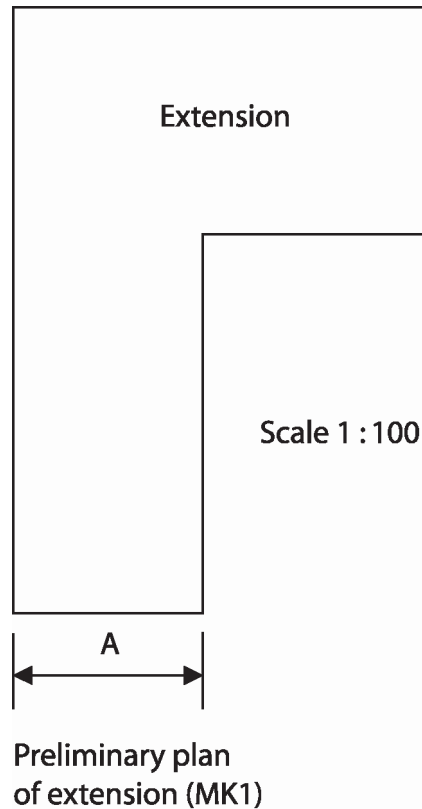
Bolton, Moor Lane Bus Station	Dep	0615	0630	0645	0700	0715	0745	0815	0845	then	15	45		1645	1715	1745
Brightmet, Coach and Horses		0629	0644	0659	0714	0729	0759	0829	0859	these	29	59		1659	1729	1759
Coronation Road		0635	0650	0705	0720	0735	0805	0835	0905	minutes	35	05	until	1705	1735	1805
Radcliffe, Bus Station		0641	0656	0711	0726	0741	0811	0841	0911	past	41	11		1711	1741	1811
Bury, Interchange	Arr	0655	0710	0725	0740	0755	0825	0855	0925	each hr	55	25		1725	1755	1825
Bury, Interchange	Dep	0728	0758	0828	0858	0928	then	58	28		1758	1828	1845	1858	1915	1928
Radcliffe, Bus Station		0744	0814	0844	0914	0944	these	14	44		1814	1844	1859	1914	1929	1944
Coronation Road		0750	0820	0850	0920	0950	minutes	20	50	until	1820	1850	1905	1920	1935	1950
Brightmet, Coach and Horses		0756	0826	0856	0926	0956	past	26	56		1826	1856	1911	1926	1941	1956
Bolton, Moor Lane Bus Station	Arr	0810	0840	0910	0940	1010	each hr	40	10		1840	1910	1925	1940	1955	2010

How many buses depart from Bury Interchange in the morning?

- A 5
- B 10
- C 13
- D 17

Questions 14 to 16 are about the extension to a house.

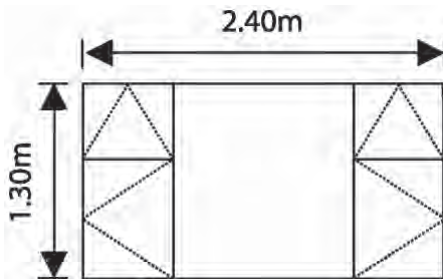
14 A homeowner draws the following scale plan.



The planned width of the actual extension at A is

- A 25mm
- B 250mm
- C 2 500mm
- D 250 000mm

- 15 The diagram shows a scale drawing of one of the windows. The window is 2.40m long and 1.30m high. The scale of the drawing has been omitted.



The scale of the drawing is

- A 1 : 10
 - B 1 : 25
 - C 1 : 50
 - D 1 : 100
- 16 The concrete mix for the extension uses 2.5 litres of water for mixing every 25 kilograms of dry concrete materials.
- To the nearest litre the amount of water which needs adding to 112 kilograms of dry concrete materials is
- A 10 litres
 - B 11 litres
 - C 12 litres
 - D 13 litres

Questions 17 and 18 are about temperatures around the world.

A traveller compares temperatures around the world. The table shows the Highest and Lowest Recorded Temperatures in the six continents.

Continent	Highest Recorded Temperature (°F)	Lowest Recorded Temperature (°F)
Africa	136	-11
Asia	126	-89
Australia	128	5
Europe	124	-67
North America	134	-81
South America	124	-27

17 What is the mean of the Lowest Recorded Temperatures?

- A -45°F
- B -46.7°F
- C -47°F
- D -54°F

18 What is the median of the Highest Recorded Temperatures?

- A 124°F
- B 126°F
- C 127°F
- D 128°F

Questions 19 to 25 are about a summer holiday in France.

This information is from a package holiday brochure.

All costs are in £s per person.

Hotel Town	Belle Vue Caen		La Plage Rouen			Soleil Paris	
	7	10	7	10	14	7	14
Days of departure	Tues	Fri	Mon	Wed	Thurs	Sat	Sun
30 May - 15 Jun	435	515	429	520	675	450	810
16 Jun - 29 Jun	445	525	439	530	685	460	820
30 Jun - 11 Jul	455	535	449	540	695	470	830
12 Jul - 1 Aug	465	545	459	550	702	480	840
2 Aug - 15 Aug	485	565	480	575	720	500	860
16 Aug - 28 Aug	500	580	500	600	740	530	880
29 Aug - 11 Sep	480	500	420	520	670	460	840

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

19 What is the earliest date a holidaymaker can depart for a 10-day holiday to Belle Vue Caen in August?

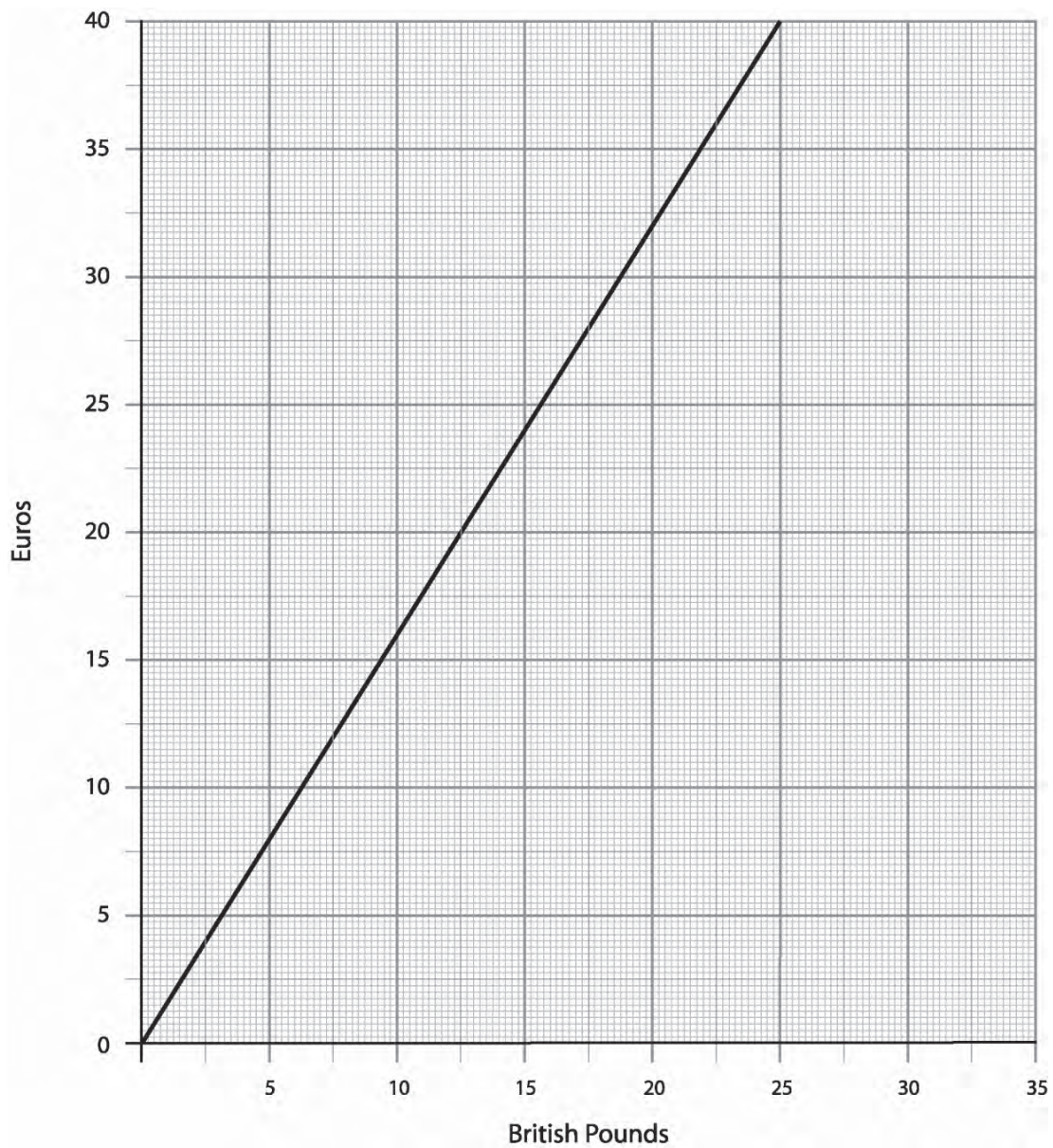
- A 1st August
- B 2nd August
- C 3rd August
- D 4th August

20 Using the information from the package holiday brochure, the mean cost of a 14-day holiday to Rouen is £699.

How much more is the mean cost of a 14-day holiday to Paris?

- A £139
- B £141
- C £151
- D £170

- 21 The graph shows how many euros you get when you change British pounds into euros.



How many euros are equivalent to £20?

- A 12.5 euros
- B 15 euros
- C 32 euros
- D 34 euros

22 The distance between Rouen and Paris is 87 miles.

1 mile is equivalent to 1.6 kilometres.

The distance from Rouen to Paris to the nearest kilometre is

- A 54 km
- B 125 km
- C 139 km
- D 147 km

23 On a map the distance from Caen to Rouen measures 5.9cm

The scale of the map is 1cm : 20km

The actual distance from Caen to Rouen is

- A 100.18km
- B 101.8km
- C 110.8km
- D 118km

24 To change from Celsius ($^{\circ}\text{C}$) to Fahrenheit ($^{\circ}\text{F}$) use the rule

Multiply the degrees Celsius by 9, divide by 5, then add 32.

The temperature one day was 28.5°C

What was the temperature in Fahrenheit?

- A 77.9°F
- B 81.5°F
- C 83.3°F
- D 83.5°F

25 The distance between Rouen and Paris is 87 miles.

A car takes 1 hour 30 minutes to make the journey.

Average speed = $\frac{\text{distance}}{\text{time}}$

What was the average speed of the car?

- A 29mph
- B 43.5mph
- C 58mph
- D 130.5mph

Question 26 to 29 are about a gym.

26 A gym has 2 478 members. 1004 are women.

What is the closest estimate of the ratio of men to women?

- A 7 : 5
- B 3 : 2
- C 5 : 2
- D 12 : 5

27 The gym staff did a survey. They found that $\frac{3}{8}$ of the female users work out at least three times a week.

What percentage of female users work out at least three times a week?

- A $26\frac{2}{3}\%$
- B 28%
- C 30%
- D $37\frac{1}{2}\%$

28 The gym staff check the pH level in the spa bath 5 times a day. The levels for day one are 8.1, 7.8, 7.2, 7.5, 7.7

What is the range of pH levels for the spa bath?

- A 0.4
- B 0.9
- C 1.1
- D 1.9

- 28 The gym manager plans to move the gym into a new building. He wants to know if the floor area will be large enough for the equipment.

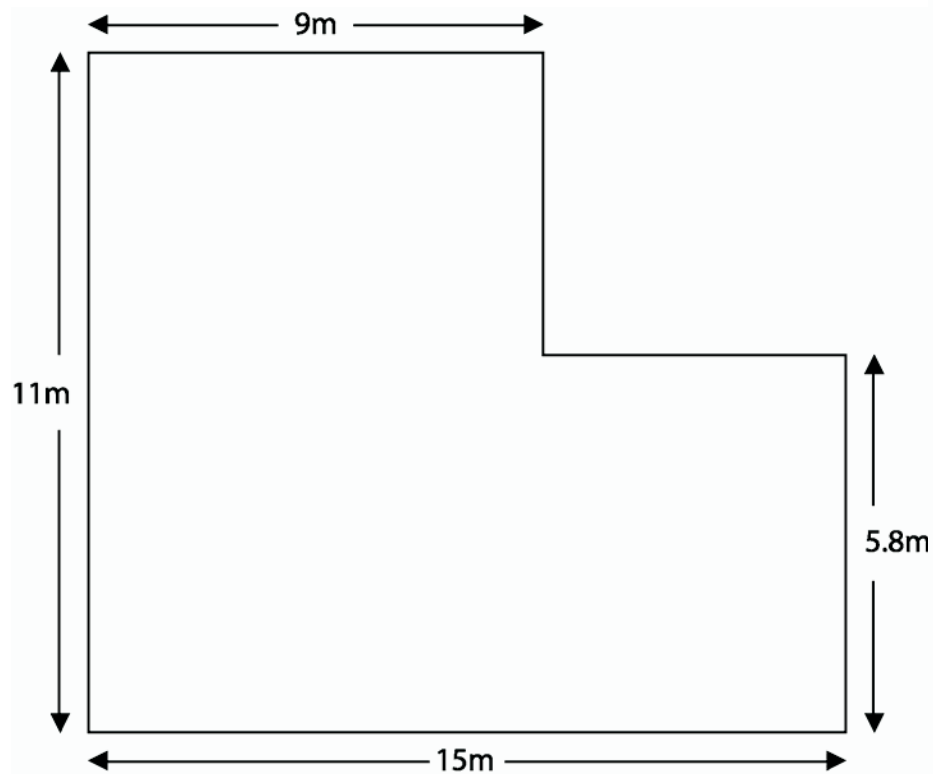


Diagram
not to
scale

The area of the gym floor is

- A 127.8 m^2
- B 129.16 m^2
- C 130.2 m^2
- D 133.8 m^2

- 30 The table shows the number of visitors to a theme park each year over a 10-year period.

Year	Number of visitors
1991	1.31 million
1992	1.52 million
1993	1.12 million
1994	1.6 million
1995	1.85 million
1996	1.45 million
1997	1.70 million
1998	1.94 million
1999	2.03 million
2000	2.25 million

Which calculation works out the percentage increase in the number of visitors between the year 1991 and the year 2000?

- A $\frac{1.31}{2.25} \times 100$
- B $\frac{2.25}{1.31} \times 100$
- C $\frac{(2.25 - 1.31)}{1.31} \times 100$
- D $\frac{(2.25 - 1.31)}{2.25} \times 100$

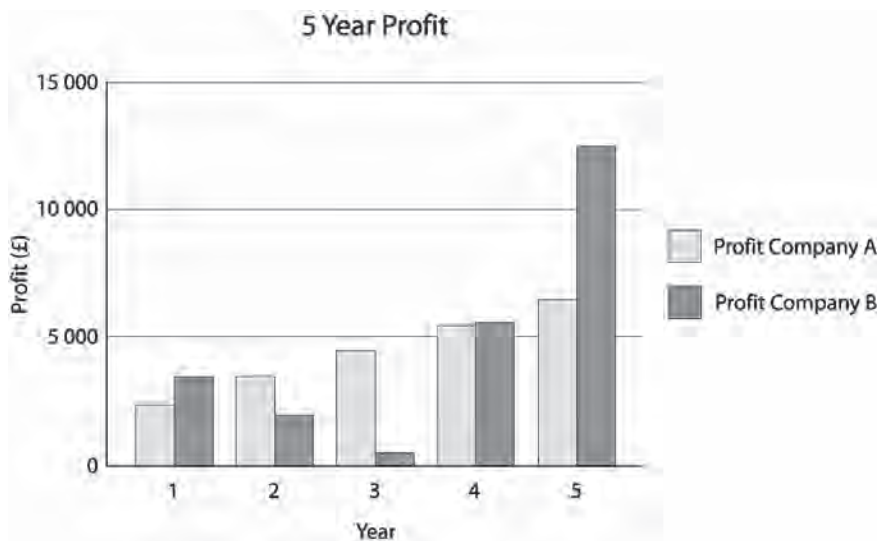
Question 31 to 34 are about the activities of two small businesses.

31 This table shows the profits of 2 businesses over a 5-year period.

Year	1	2	3	4	5
Profit in £s Company A	2010	3450	4200	5970	7250
Profit in £s Company B	-3420	-1580	550	6140	12620

The information from the table is made into a chart.

What is wrong with the chart?



- A The scale on the vertical axis is uneven.
- B The label on the horizontal axis is wrong
- C The key is the wrong way round
- D Some of the data are plotted incorrectly

32 Company A has 599 employees. 148 are part time workers.

About what fraction of the employees are part time workers?

- A $\frac{1}{6}$
- B $\frac{1}{5}$
- C $\frac{1}{4}$
- D $\frac{1}{3}$

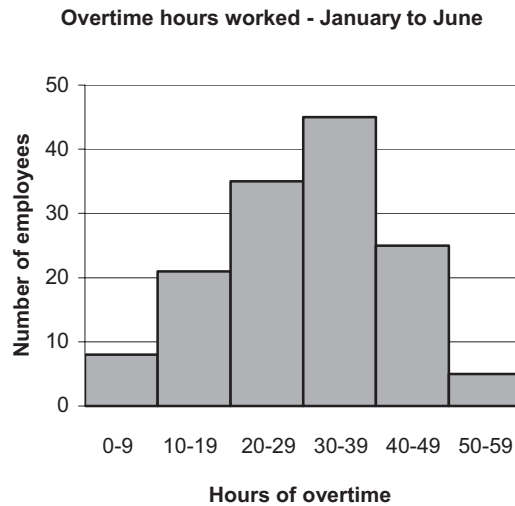
- 33 The table shows information about the weekly wages of Company A employees.

Weekly wage	Number of employees
Less than £200	190
£200 up to £399	287
£400 up to £599	82
£600 or more	40

About what percentage earn £400 or more?

- A 25%
- B 20%
- C 15%
- D 10%

34 The chart shows the distribution of hours overtime worked by the employees in Company B over a 6-month period January to June.



How many employees worked **at least** 30 hours overtime?

- A 35
- B 45
- C 75
- D 110

Questions 35 to 39 are about home and garden improvements.

35 The owner of a house is planning to tile the kitchen floor. Here is a sketch of the kitchen floor.

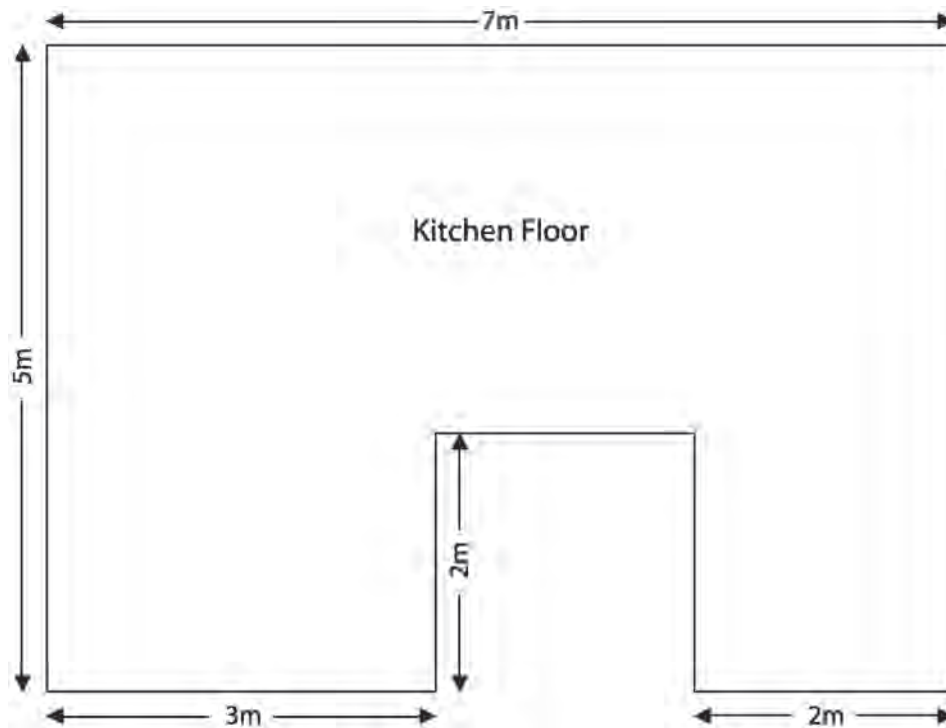


Diagram
not to
scale

What is the area of the floor?

- A 25m^2
- B 31m^2
- C 32m^2
- D 35m^2

36 The owner plans to lay carpet tiles in his lounge.

Here is a sketch of his lounge.

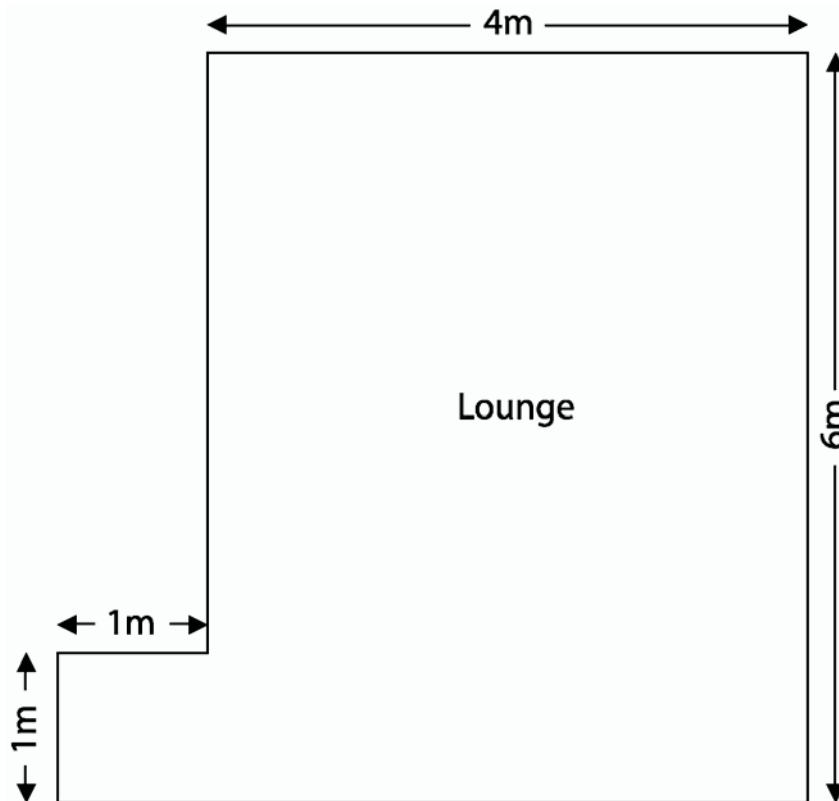


Diagram
not to
scale

Carpet tiles cost £6 each and measure 0.5m by 0.5m.

How much will it cost to buy the carpet tiles?

- A £60
- B £288
- C £300
- D £600

- 37 A gardener charges £5.95 per hour plus a fixed charge of £39.95. He estimates that it will take him 7 hours 45 minutes to complete the job. He quotes a price of £86.07.

Which calculation best checks his price?

- A $(6 \times 7) + 40$
- B $(6 + 40) \times 7$
- C $(6 + 40) \times 8$
- D $(6 \times 8) + 40$

- 38 A concrete base is made for a garden shed to stand on.

Here are the instructions to make concrete.

Mix sand, gravel and wet cement in the ratio 3 : 2 : 1

The builder uses 36 shovels of gravel.

How many shovels of sand does he need?

- A 12
- B 18
- C 36
- D 54

- 39 The builder charges £90 for concreting 5m^2 .

The base is to be a rectangle 3m wide and 2.5m long.

How much will the builder charge?

- A £60
- B £135
- C £150
- D £180

- 40 An electricity bill for January 1st to March 31st is made up of a fixed charge of £14.30 plus 7.4 pence for every unit used.

Which is a correct method of calculating the total bill in pounds for 683 units?

- A $\frac{7.4 \times 683}{100} + 14.3$
- B $7.4 \times 683 + 14.3$
- C $\frac{7.4 \times 100}{100} + 14.3$
- D $(14.30 + 7.4) \times 683$

End of test