

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

Practice Test Paper C

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. Here are the temperatures for some places in the UK on a day in January.

Place	Temperature in degrees Celsius ($^{\circ}\text{C}$)
Cardiff	0
London	-1
Inverness	-8
Birmingham	-6
Portsmouth	3

When arranged in order of temperature from coldest to hottest the places are

- A Cardiff, London, Portsmouth, Birmingham, Inverness
- B London, Cardiff, Portsmouth, Inverness, Birmingham
- C Cardiff, Inverness, Birmingham, London, Portsmouth
- D Inverness, Birmingham, London, Cardiff, Portsmouth

2. Here are the temperatures for some places in the UK on a day in January.

Place	Temperature in degrees Celsius ($^{\circ}\text{C}$)
Cardiff	0
London	-1
Inverness	-8
Birmingham	-6
Portsmouth	3

On Monday, the temperature in Glasgow was -8°C . On Tuesday the temperature is Glasgow 3°C higher.

What is the new temperature in Glasgow on Tuesday?

- A -11°C
- B 11°C
- C 5°C
- D -5°C

3. A businessman records his total mileage in one year. Here are the results:

Business mileage: 7,200

Private mileage: 10,800

What is the ratio of his business mileage to his private mileage?

- A 3 : 4
- B 4 : 3
- C 2 : 3
- D 3 : 2

4. At 3am one morning the temperature in a garden is -4°C . By 7am the temperature has risen by 2°C .

What is the temperature at 7am?

- A -6°C
- B -2°C
- C 2°C
- D 6°C

5. The plans for a house are drawn in the ratio of 1 : 50. On the drawing the top of the chimney is 14cm above the ground.

How high is the actual chimney above the ground?

- A 70cm
- B 7m
- C 14m
- D 70m

6. The diagram shows the reading on a digital distance measurer.



What is the distance correct to the nearest 10 metres?

- A 1.2 km
- B 1.26 km
- C 1.27 km
- D 1.3 km

7. A total of 1600 people work for a company. The ratio of male to female employees is 3:5.

How many more females than males are there in the company?

- A 400
- B 600
- C 960
- D 1000

8. A company employs 3 men and 4 women. The men's ages are 18, 35 and 47. The women's ages are 20, 25, 25 and 50.

Which of the following statements is correct?

- A The median age of the men is less than the median age of the women
- B The mean age of the men is less than the mean age of the women
- C The mean age of the men is greater than the mean age of the women
- D You can't compare men and women because there are more women than men

9. In a company:
- the range of women's salaries is £30,000.
 - the range of the men's salaries is £20,000.

This tells us that in this company

- A women earn more than the men
- B men earn more than the women
- C men's salaries are more varied than women's
- D the spread of men's salaries is less than women's

10. Overtime in a company is paid at a rate of "time and a quarter". This means

$$\text{Overtime rate per hour} = \frac{5}{4} \times (\text{Normal payment rate per hour})$$

The normal payment rate is £5.60 per hour. One employee works a normal 40 hour week and 4 hours overtime.

How much is she paid?

- A £224.00
- B £246.40
- C £252.00
- D £308.00

11. The table shows the number of hours worked by employees of a company in one week.

Hours Worked (nearest hour)	Number of Employees
1-10	11
11-20	6
21-30	23
31-40	72
41-50	8

Part-time employees work 30 hours or less.

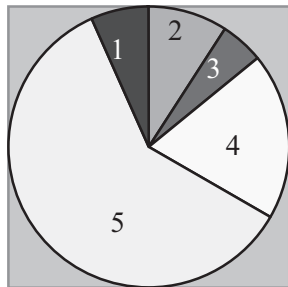
What fraction of the 120 employees is part-time?

- A $\frac{17}{120}$
- B $\frac{1}{4}$
- C $\frac{1}{3}$
- D $\frac{1}{2}$

12. The table shows the number of hours worked by employees of a company in one week.

Hours Worked (nearest hour)	Number of Employees
1-10	11
11-20	6
21-30	23
31-40	72
41-50	8

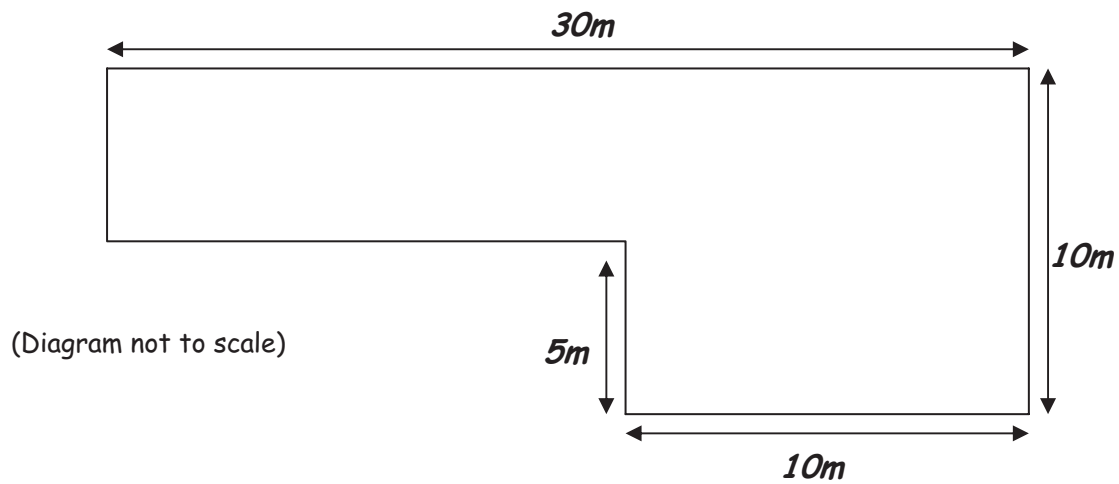
A pie chart was drawn to represent the information.



Which section represents the group working 21- 30 hours per week?

- A 1
- B 2
- C 3
- D 4

13. The diagram shows the top view of an L-shaped swimming pool.

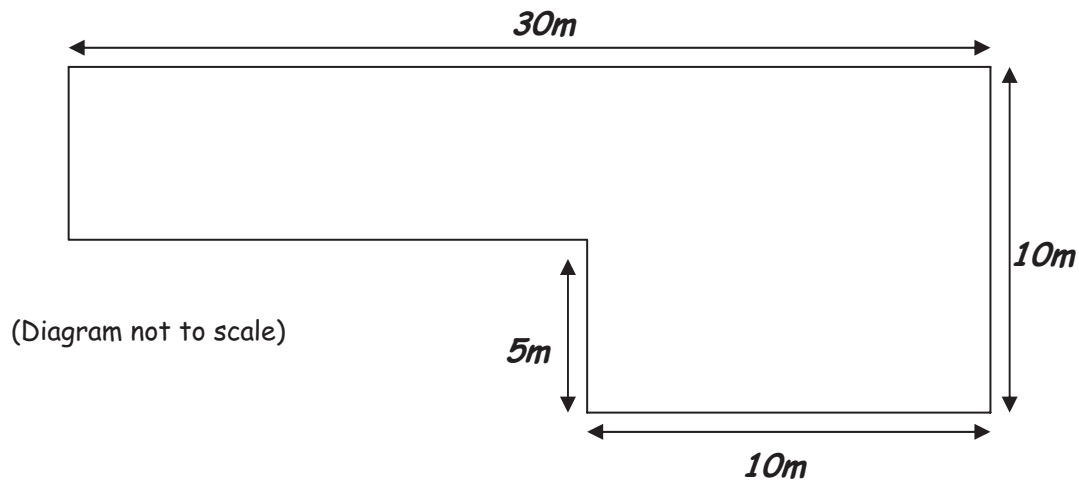


A handrail runs all the way round the inside of the pool.

How long is the rail?

- A 55m
- B 60m
- C 75m
- D 80m

14. The diagram shows the top view of an L-shaped swimming pool.



The area of the water surface in square metres is

- A 80
- B 100
- C 200
- D 300

15. A swimming pool holds 600,000 litres of water and is emptied for cleaning. The water empties at a rate of 500 litres a minute.

What is the time taken to empty the pool?

- A 20 minutes
- B 500 minutes
- C 2 hours
- D 20 hours

16. The following table compares the performance of four companies over a two year period.

Company	2001	2002
Eastlands	Loss of £3.5 million	Loss of £5 million
Oldmatic	Loss of £0.5 million	Profit of £0.5 million
Spaceflecks	Profit of £4 million	Profit of £2 million
Topgrade	Loss of £1.5 million	Profit of £2 million

Which company had the greatest increase in profit between 2001 and 2002?

- A Eastlands
- B Oldmatic
- C Spaceflecks
- D Topgrade

17. The table shows desirable weights for adults of medium frame.

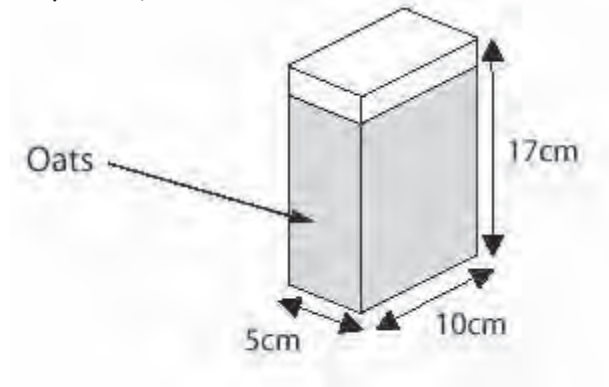
	Height (in bare feet)		Weight (without clothes)	
	ft	in	lb	kg
<i>Men</i>	5	5	122–135	55–61
	5	6	126–139	57–63
	5	7	130–144	59–65
	5	8	134–148	61–67
	5	9	138–152	63–69
	5	10	142–157	65–71
	5	11	146–162	66–74
	6	0	150–167	68–76
	6	1	154–172	70–78
	6	2	159–177	72–80
<i>Women</i>	5	0	102–114	46–52
	5	1	105–117	48–53
	5	2	108–121	49–55
	5	3	111–125	50–57
	5	4	115–130	52–59
	5	5	119–134	54–61
	5	6	123–138	56–63
	5	7	127–142	58–65
	5	8	131–146	60–66
	5	9	135–150	61–68
	5	10	139–154	63–70

What is the desirable weight in kilograms for a woman who is 173 centimetres tall?

- A 134–148
- B 131–146
- C 61–67
- D 60–66

18. The diagram shows a pack of oats.

(Diagram not to scale)



100cm³ of oats weighs 50g. The pack is filled so as to leave a 2cm deep air space at the top. What is the weight of oats in the pack?

- A 16g
- B 75g
- C 375g
- D 425g

19. A carton contains 450g of oats. A normal serving is 30g.

How many servings can be obtained from the carton?

- A 15
- B 30
- C 150
- D 1 500

20. A man travels from Switzerland to France. The journey takes two and a half hours to travel 160 kilometres.

How far is the journey in miles? (Take 8 kilometres to be the same as 5 miles)

- A 80 miles
- B 100 miles
- C 160 miles
- D 256 miles

21. A man travels from Switzerland to France. The journey takes two and a half hours to travel 160 kilometres.

The average speed for the 160km journey is

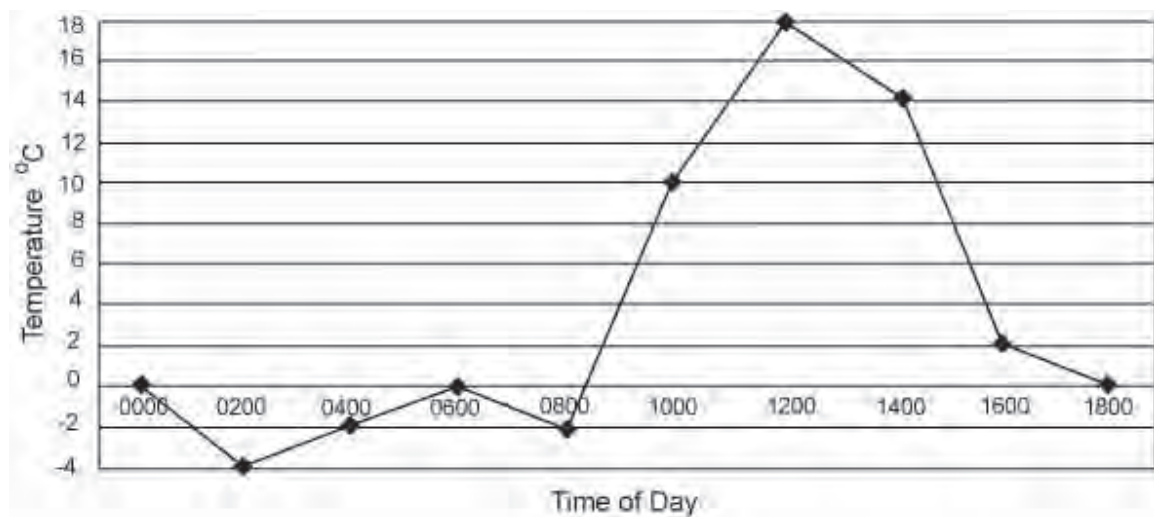
- A 50 kilometres per hour
- B 64 kilometres per hour
- C 160 kilometres per hour
- D 400 kilometres per hour

22. A man spends 42 Euros in a shop. £1 is approximately 1.4 Euros.

The amount he spends in the shop is about

- A £3
- B £28
- C £30
- D £59

23. The graph shows the temperatures at certain times of day in a building.

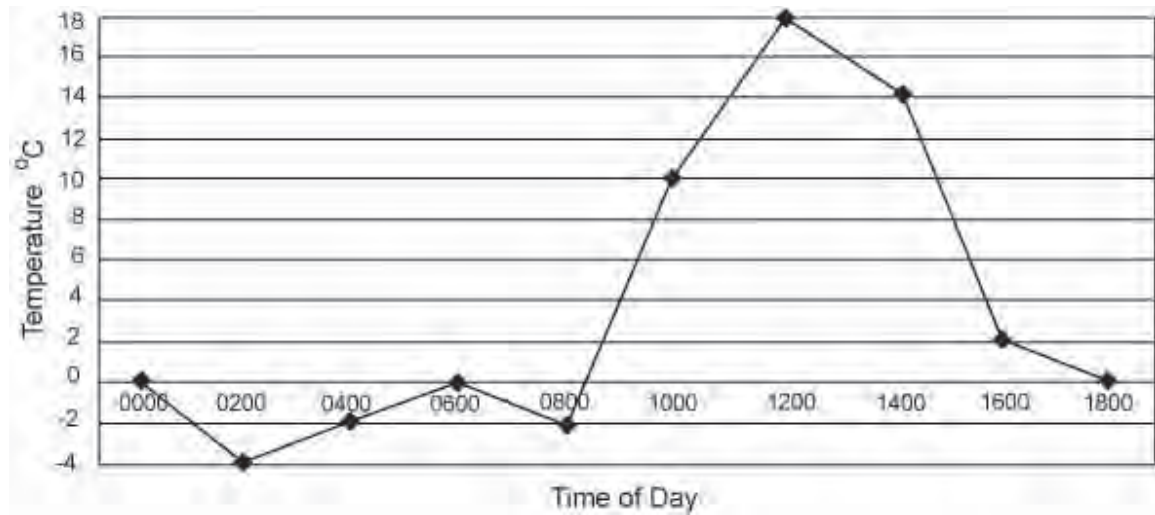


What is the difference between the highest and lowest temperatures?

- A 14°C
- B 18°C
- C 22°C
- D 24°C

24. The graph shows the temperatures at certain times of day in a building.

What is the best estimate of the temperature at 3am?



- A -3°C
- B -2.5°C
- C -1.5°C
- D 1.5°C

25. This table shows the birth weights in kilograms of 45 babies.

1.85	3.29	3.58
2.12	3.30	3.61
2.18	3.41	3.62
2.21	3.47	3.63
2.58	3.48	3.63
2.64	3.50	3.69
2.83	3.51	3.74
2.85	3.51	3.75
2.90	3.52	3.78
3.03	3.53	3.84
3.12	3.53	3.84
3.15	3.53	3.87
3.17	3.54	3.90
3.21	3.54	4.02
3.28	3.55	4.16

What is the range of these birth weights?

- A 1.43 kg
- B 1.85 kg
- C 2.31 kg
- D 3.31 kg

26. What is the ratio of the number of babies weighing less than three and a half kilograms to the number of babies weighing three and a half kilograms and over?

- A 1 : 2
- B 4 : 5
- C 3 : 5
- D 5 : 4

27. A series of books is priced at £5.99 each. The bill for 12 books comes to £64.69. This includes a 10% discount.

Which is the most appropriate method to check the calculation?

A $\frac{64.69}{12} - \frac{10}{100} \times 5.99 \times 12$

B $\frac{64.69}{12} - \frac{10}{100} + 5.99 \times 12$

C $5.99 \times 12 + \frac{10}{100} \times 5.99 \times 12$

D $5.99 \times 12 - \frac{10}{100} \times 5.99 \times 12$

28. The sign shows the opening times for a museum.

Old Ships Museum

Opening Times

April – October	Monday – Friday 11am – 1pm, 2pm – 5pm Saturdays and Sundays 9am – 1pm, 2pm – 4pm
------------------------	---

How many hours a week (Monday - Sunday) is the museum open from April to October?

- A 35
- B 37
- C 42
- D 44

29. According to the table below, approximately what proportion of the female population in 1991 was aged 45 and over?

Population: by gender and age								
United Kingdom								
Percentage:	Under 16	16-24	25-34	35-44	45-54	55-64	65-74	75 and over
Males								
1901	34	20	16	12	9	6	3	1
1931	26	18	16	13	12	9	5	2
1961	25	14	13	14	14	11	6	3
1991	21	14	16	14	12	10	8	5
1999	21	11	16	15	13	10	8	5
Females								
1901	31	20	16	12	9	6	4	2
1931	23	17	16	14	12	9	6	2
1961	22	13	12	13	14	12	9	5
1991	19	12	15	13	11	10	9	9
1999	20	10	15	14	13	10	9	9

- A One in twenty
- B One in ten
- C One in five
- D Two in five

30. According to the table below the proportion of females aged 55 or over

Population: by gender and age								
United Kingdom								
Percentage:	Under 16	16-24	25-34	35-44	45-54	55-64	65-74	75 and over
Males								
1901	34	20	16	12	9	6	3	1
1931	26	18	16	13	12	9	5	2
1961	25	14	13	14	14	11	6	3
1991	21	14	16	14	12	10	8	5
1999	21	11	16	15	13	10	8	5
Females								
1901	31	20	16	12	9	6	4	2
1931	23	17	16	14	12	9	6	2
1961	22	13	12	13	14	12	9	5
1991	19	12	15	13	11	10	9	9
1999	20	10	15	14	13	10	9	9

- A is greater than the proportion of males aged 55 or over for each of the five years shown in the table
- B is greater than the proportion of males aged 55 or over for only four of the five years shown in the table
- C has increased from each year shown in the table till the next
- D is about five times as great in 1999 as in 1901

31. A florist buys 176 bunches of carnations. Each bunch has 31 flowers.

Which answer is the closest estimate of the total number of flowers bought?

- A 6
- B 540
- C 2 700
- D 5 400

32. A florist pays 40p a bunch for 176 bunches of carnations. She sells 160 bunches for £1.65 per bunch. The remaining bunches remained unsold.

Which calculation will give her profit in £s?

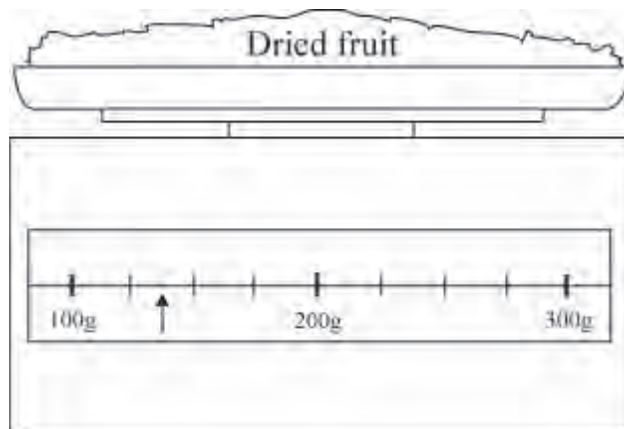
- A $160 \times 1.65 - 176 \times 40$
- B $176 \times 0.40 - 160 \times 1.65$
- C $160 \times 1.65 - 176 \times 0.40$
- D $176 \times 0.40 - 176 \times 1.65$

33. A florist feeds her flowers with 6 drops of fertiliser to every 400ml of water.

How many drops of fertiliser are needed for 1.8 litres of water?

- A 22
- B 27
- C 30
- D 40

34. Which of these is closest to the weight of fruit on these scales?



- A 115g
- B 125g
- C 140g
- D 150g

35. A 6 inch diameter tin is used for baking a cake.

If 1 inch is approximately 2.5 centimetres, what is the diameter of the tin in centimetres?

- A 2.5cm
- B 15cm
- C 20cm
- D 60cm

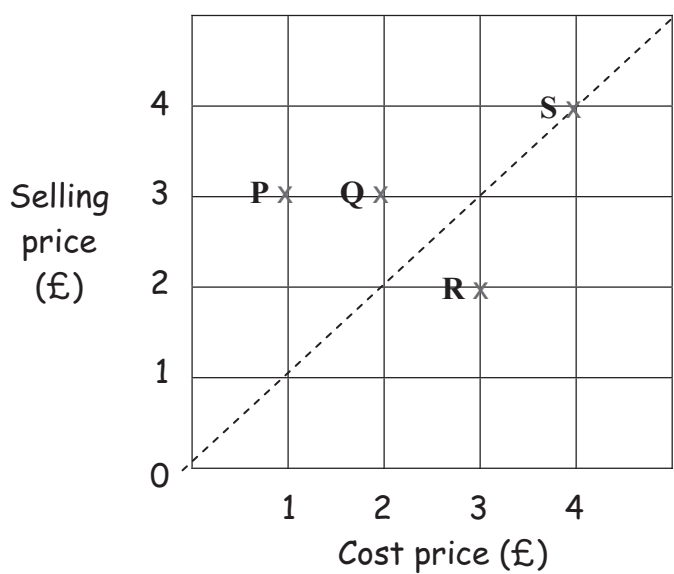
36. The baking instructions for a cake state: "Pre-heat the oven to 300°F".

Using $^{\circ}\text{C} = (^{\circ}\text{F} - 32) \times 5/9$ to convert 300°F to $^{\circ}\text{C}$, 300°F is:

- A about 150°C
- B about 160°C
- C about 170°C
- D about 180°C



37. Each point on the diagram shows the cost price and the selling price of an item in a shop.



Which item makes the most profit?

- A P
- B Q
- C R
- D S

38. In a game of golf, a player's net score is calculated by subtracting their handicap from their gross score. In a competition, the following scores were recorded:

Player	Handicap	Gross score
Maria	14	88
Letty	12	82
Francis	13	87
Wilma	14	83

Which player had the lowest net score?

- A Maria
- B Letty
- C Francis
- D Wilma

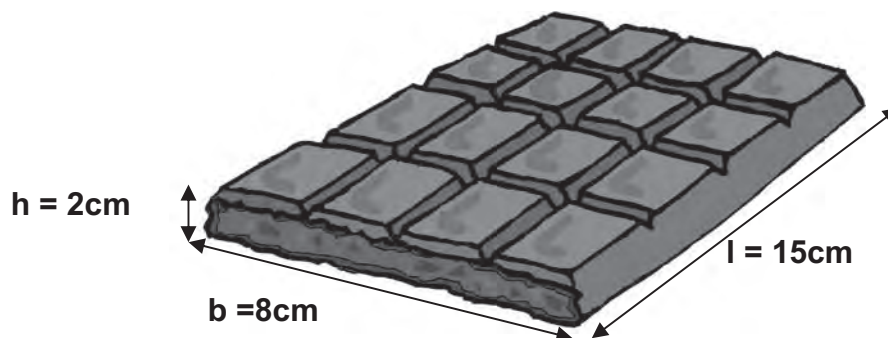
39. The percentage profit made when goods are sold is worked out using the formula: $(S - C) \div C \times 100$

£ S is the selling price of the goods and £ C is the cost price. The cost price of a shirt is £10. The selling price is £15.

Calculate the percentage profit.

- A 30%
- B $33\frac{1}{3}\%$
- C 40%
- D 50%

40. The diagram shows a block of chocolate.



(Diagram not to scale)

The formula for the volume of the block is: $\text{Volume} = l \times b \times h$

Using the formula, the volume of the chocolate block is:

- A 240cm^3
- B 440cm^3
- C 600cm^3
- D 900cm^3

End of test