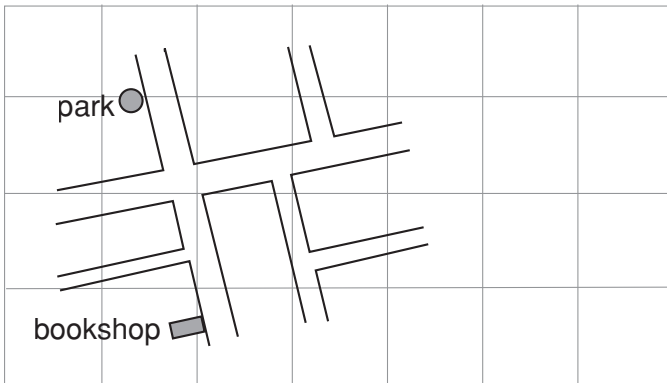**YEAR**

7

2015

NUMERACY
CALCULATOR ALLOWED

Use 2B or HB
pencil **only**

1 This is a street map.

About how far is it from the park to the bookshop?

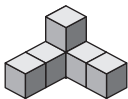| 50 metres	130 metres	200 metres	250 metres
⚬	⚬	⚬	⚬

2 Brian made this 3D object using 48 small cubes.
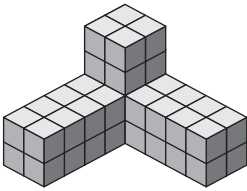
Which of these has a volume half that of Brian's object?

⚬	⚬	⚬	⚬
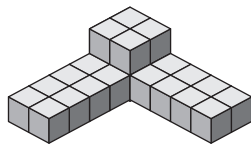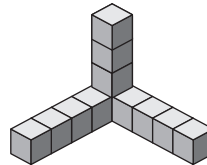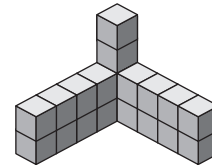
3 Fran makes $72 selling 9 cakes at a market.

All her cakes are the same price.

How much money will she make selling 12 cakes?

$54	$76	$93	$96
⚬	⚬	⚬	⚬

4 A regular pentagon is cut to make two identical halves.

The shape of each half is a

hexagon.   quadrilateral.   pentagon.   triangle.

◯   ◯   ◯   ◯

5 Some eggs have been removed from this carton.
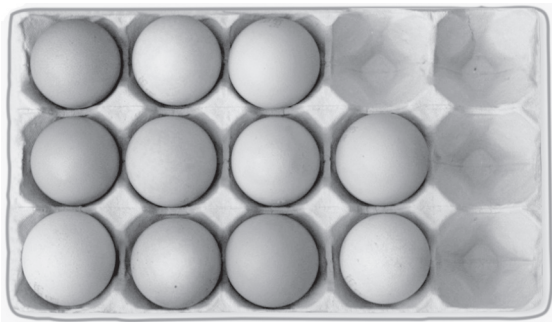
What fraction of the full carton of eggs has been removed?

$\dfrac{1}{4}$ $\dfrac{4}{11}$ $\dfrac{4}{15}$ $\dfrac{11}{15}$

◯   ◯   ◯   ◯

6

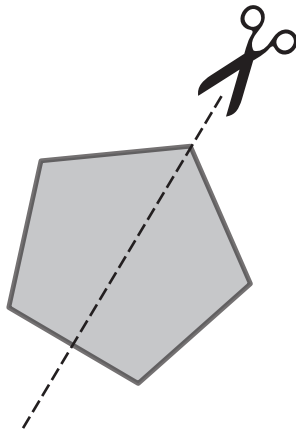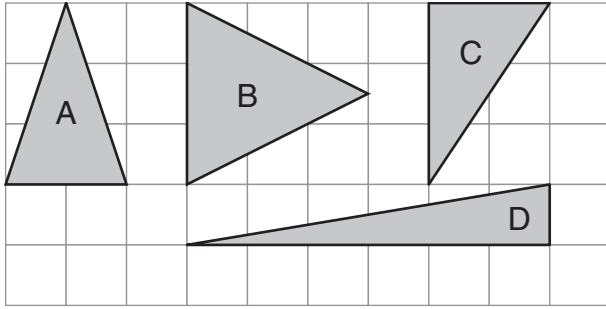Which triangle has an area greater than 3 square units?

A	B	C	D
◯	◯	◯	◯

7

Which one of these numbers is a factor of 38?

3	8	19	76
◯	◯	◯	◯

8

This graph shows data about a chess club.

Age of chess club members
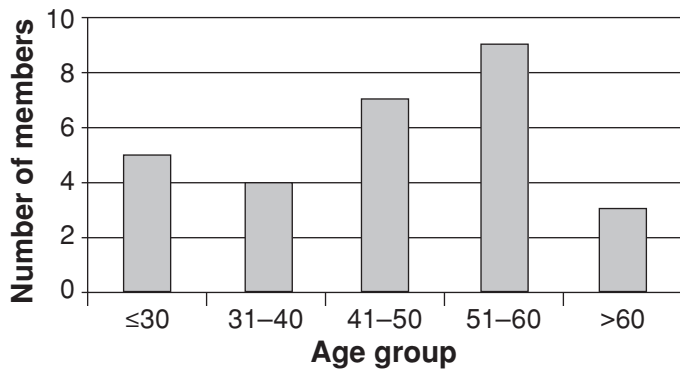
How many members of this chess club are 41 or over?

7	9	12	16	19
◯	◯	◯	◯	◯

9 This is Donna's left shoe.
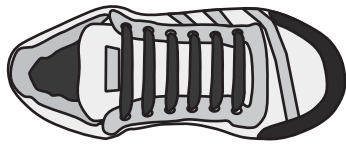
Donna's right shoe is a mirror image of her left shoe.

Which of these is Donna's right shoe?

---

10 There are 12 apples and 7 pears in a bowl.

About what percentage of the fruit in the bowl is pears?

7%	37%	58%	63%
⭕	⭕	⭕	⭕

---

11 Which one of these has the same value as 20^2 ?

$40^2 \div 4$	$2 \times 2 \times 5 \times 2 \times 5$	4×5^2	$2 \times 10 \times 10$
⭕	⭕	⭕	⭕

12

Dress sizes in Australia and Europe						
Australian size	8	10	12	14	16	18
European size	38	40	42	44	46	48

What is the rule connecting dress sizes in Australia and Europe?

○ *European size = Australian size – 30*

○ *European size = Australian size + 30*

○ *European size = (2 × Australian size) + 22*

○ *European size = (4 × Australian size) + 6*

13

Which of the following lists the numbers in increasing order?

○ $35\%, \ 0.5, \ 0.53, \ \dfrac{3}{5}$

○ $\dfrac{3}{5}, \ 0.5, \ 35\%, \ 0.53$

○ $35\%, \ \dfrac{3}{5}, \ 0.5, \ 0.53$

○ $\dfrac{3}{5}, \ 0.53, \ 0.5, \ 35\%$

14

A concert starts at 10:28 am and runs for 124 minutes.

What time does it finish?

    11:52 am   11:52 pm   12:32 am   12:32 pm

     ○   ○   ○   ○

15 Tim has two large boxes of cereal with the same mass.

He also has a smaller box that has a mass of 175 grams.

He has 1675 grams of cereal in total.

Which expression can be used to calculate the mass of one large box of cereal?

2 × (1675 + 175)   2 × (1675 − 175)   (1675 + 175) ÷ 2   (1675 − 175) ÷ 2

◯   ◯   ◯   ◯

---

16 The diagram shows an isosceles triangle.
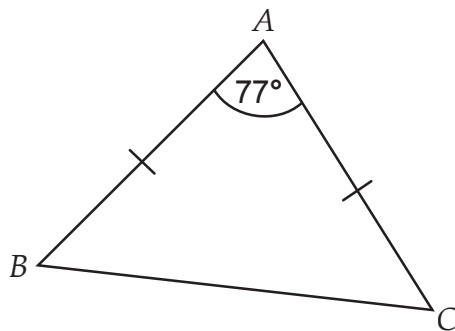
What is the size of the angle $\angle ABC$?

38.5°   45°   51.5°   60°

◯   ◯   ◯   ◯

---

17 Ahmed had a box of 15 fruit sticks.

The box contained equal numbers of orange, strawberry and apricot sticks.

He picked a stick without looking.

What was the chance that the stick was either an apricot or a strawberry flavour?

$\dfrac{2}{15}$ $\dfrac{1}{15}$ $\dfrac{2}{5}$ $\dfrac{2}{3}$ $\dfrac{1}{3}$

◯   ◯   ◯   ◯   ◯

18 A rectangle has a length of 15 cm and a width of 10 cm.

A square has the same perimeter as this rectangle.

What is the side length of this square in centimetres?

5	6.25	12.5	37.5
⬭	⬭	⬭	⬭

19

Continent	Number of cars produced
Africa	636 519
Asia/Oceania	45 800 878
Europe	19 726 405
North America	21 136 313
South America	4 288 654

How many **more** cars were produced in North and South America than in Europe and Africa?

20 An unknown number is added to 4.

The result is multiplied by 3 to give an answer of 9.

Which of these is the unknown number?

−3	−1	1	23
⬭	⬭	⬭	⬭

21 Ms Hogan has more than 20 students in her class.

When she divides the class into groups of 5, there are 4 students left over.

When she divides the class into groups of 4, there is 1 student left over.

What is the least number of students that could be in Ms Hogan's class?

---

22 $?$ $+ \dfrac{3}{4} = \dfrac{11}{4}$
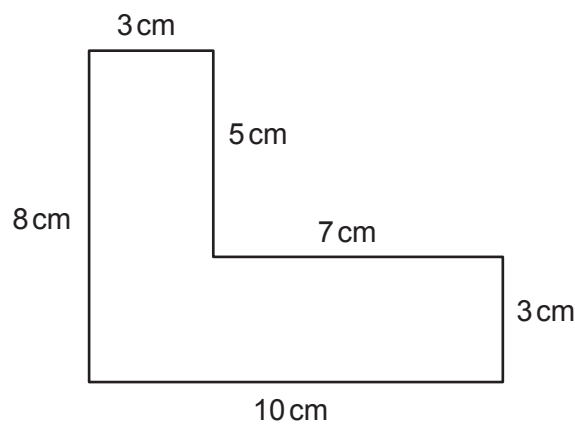
What number does $?$ represent?

2	$3\dfrac{1}{2}$	$3\dfrac{2}{3}$	8
⬭	⬭	⬭	⬭

23

3 cm

5 cm

8 cm

7 cm

3 cm

10 cm

Which of these could be used to calculate the area of the shape in square centimetres?

$(8 \times 3) + (10 \times 3)$	$(10 \times 8) - (7 \times 3)$	$(8 \times 5) + (7 \times 3)$	$(10 \times 8) - (7 \times 5)$
⬭	⬭	⬭	⬭

24 Rachel lives 2 km from her school.

She walks to school at a constant speed of 5 km per hour.

How many minutes does it take for Rachel to walk to her school?

2.5	10	24	40
◯	◯	◯	◯

25 This table shows the after-school activities taken by students in a Year 7 class.

	Sport	Music	Drama	Art	Debating
Boys	9	6	1	4	4
Girls	6	3	8	2	1

Some students do more than one activity after school.

What is the least number of girls that could be in this class?

20	17	8	1
◯	◯	◯	◯

26 Simon is facing west. He turns 135° clockwise.

Simon then turns anticlockwise until he faces east.
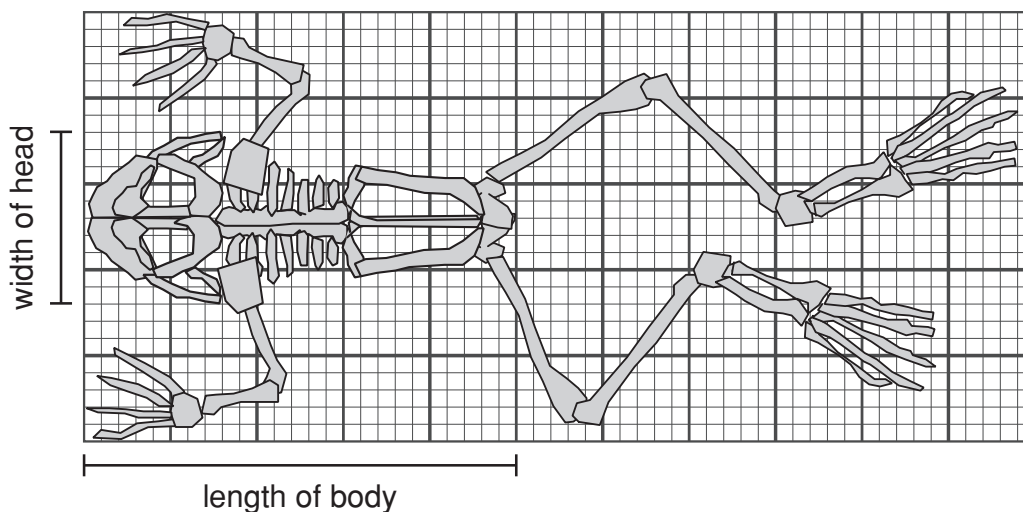
By how many degrees did Simon turn anticlockwise?

45°	180°	225°	315°
◯	◯	◯	◯

10

27 David drew this diagram of a frog's skeleton.

The actual length of the frog's body is 100 millimetres.

What is the actual width of the frog's head?

	millimetres

28 Sarah was collecting money for charity.

By Sunday night she had collected 55% of her target amount.

On Monday she collected another $70, which meant she had now collected 75% of her target amount.
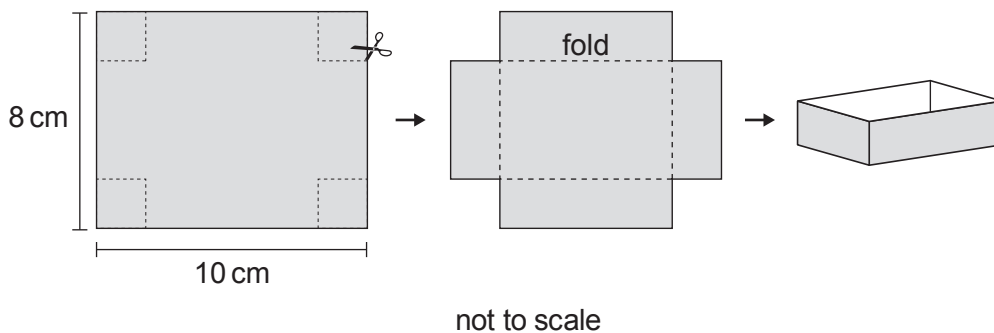
What was Sarah's target amount?

$ [   ]

29

Lin is seven years younger than Adrian.

Adrian is four years older than half of Maya's age.

The sum of all three ages is 61.

How old is Lin?

30

Squares with sides 2 cm are cut out from the corners of a rectangular piece of cardboard.

The sides are then folded to make a rectangular box with no lid.

8 cm

10 cm

fold

not to scale

What is the volume of the box?

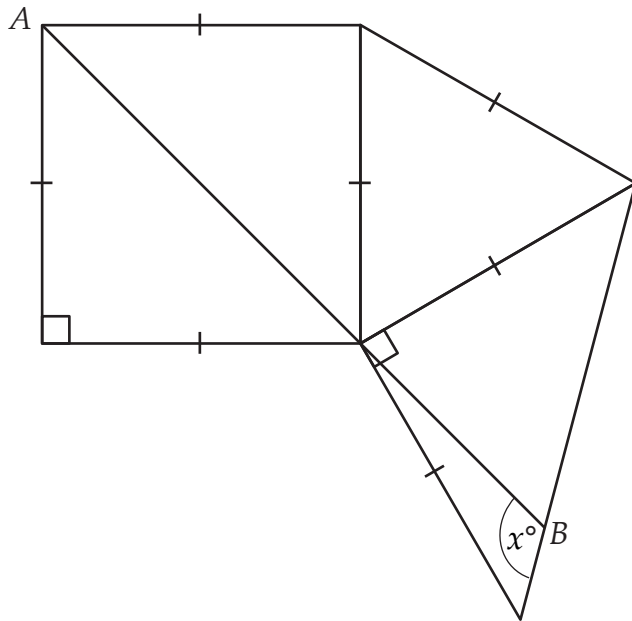| 24 cm^3	48 cm^3	80 cm^3	96 cm^3	160 cm^3
⭘	⭘	⭘	⭘	⭘

31

Mark has a square photo with an area of 9 cm².

He enlarged the photo to have an area of 36 cm².

To do this, the length of each side was multiplied by a factor of

two.	three.	four.	five.	six.
⭘	⭘	⭘	⭘	⭘

32 In the diagram AB is a straight line.

What is the size of the angle marked $x°$?

degrees

STOP – END OF TEST

Do not turn this page.