

7 (a) What is the number?

- It is
- bigger than 10
 - less than 20
 - a square number

(a)[1]

(b) What are the numbers?

- They are
- bigger than 10
 - less than 30
 - common factors of 48 and 72

(b) and[2]

(c) What are the numbers?

- They are
- bigger than 20
 - less than 100
 - cube numbers

(c) and[2]

5	
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[Turn over



- 8 (a) Dan and Sarah are describing quadrilaterals.

	Dan's quadrilateral	Sarah's quadrilateral
parallel sides	2 pairs	none
equal sides	all 4	2 pairs
equal angles	all 4	1 pair

Write down the names of the quadrilaterals.

(a) Dan's quadrilateral[1]

Sarah's quadrilateral[1]

- (b) Mary does the same for rectangles.

Fill in Mary's table for rectangles.

	Mary's rectangle
parallel sides	
equal sides	
equal angles	

[2]

4	
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- 9 Simplify.

(a) $8a + 3a - 9a$

(a)[1]

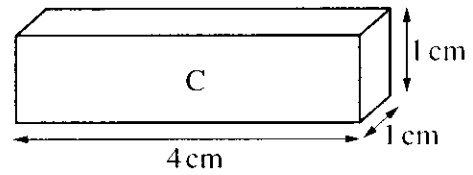
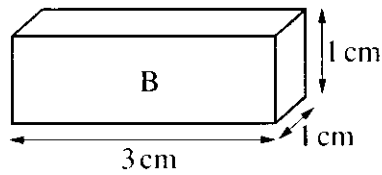
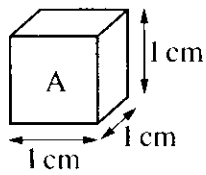
(b) $6c + 4d - 2d - c$

(b)[2]

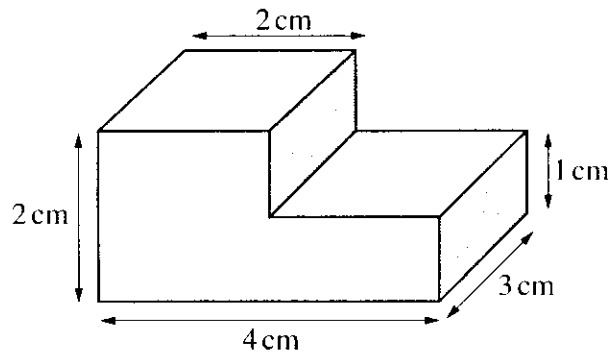
3	
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- 10 Kanta has lots of these building blocks.
There are three types, A, B and C.



She builds this model.



- (a) (i) First she builds the model using **only** type B blocks.

How many does she need?

(a)(i)[1]

- (ii) Then she builds it using type B and type C blocks.

How many of each does she need?

(ii) Block B: Block C:[1]

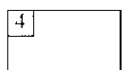
- (b) (i) What is the volume of the type B block?

(b)(i)cm³ [1]

- (ii) What is the volume of the model?

(ii)cm³ [1]

[Turn over



11 Mansoor carried out a survey.

- (a) He asked students **how far** they travel from home.
This table summarises his results.

	College	School
mean distance (km)	5.7	0.8
median distance (km)	4.3	0.75
range (km)	12	5.5

He makes these statements about his results.
Complete his reasons.

College students travel further than school students.

I know this because
.....
.....[1]

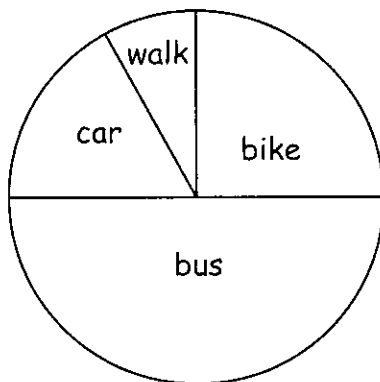
None of the school students travel more than 10km, but
at least one college student does.

I know this because
.....
.....[1]

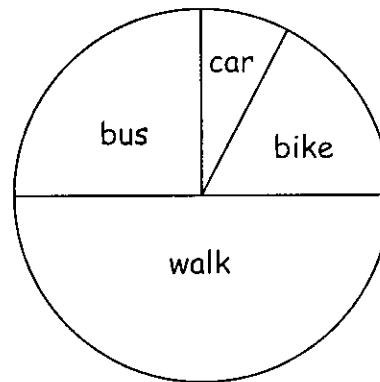


(b) Mansoor asked students **how** they travel.

These pie charts show his results.



College



School

He asked 100 college students and 300 school students.

He says

More College students travel by bus than school students.

Is this correct?

Explain how you decide.

.....

.....

.....[2]

4	
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TURN OVER FOR QUESTION 12



- 12 (a) Here is the rule for finding the next term of a sequence.

multiply by 2 then subtract 7

Find the next two terms of the sequence.

5,,

[2]

- (b) Here is a different sequence.

Position	1	2	3	4	5
Term	5	8	11	14	17

- (i) Find the 100th term of this sequence.

(b)(i)[1]

- (ii) Show how you worked out your answer.

.....[2]

5

