

## 7C Half Term Assessment 1

The assessment will last a total of **40 minutes**.

You will be given 10 minutes to work on Section A ONLY using a calculator.

You will then have 30 minutes in which to complete the rest of the paper. During this time you must NOT use a calculator but you may work on both Sections A and B.

**Section A: You may use a calculator for these questions.**

**1** Work out each of the following:

(a)  $21.8 - 7.39$  .....

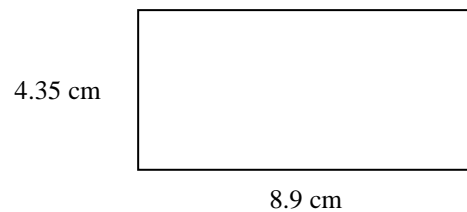
(b)  $2.4 \times 3.2 - 2.87$  .....

(c)  $\frac{6.624}{1.84}$  .....

(d)  $\frac{17.5+3.62}{0.62+4.18}$  .....

(4 marks)

**2 (a)** What is the area of the rectangle to the right?



.....

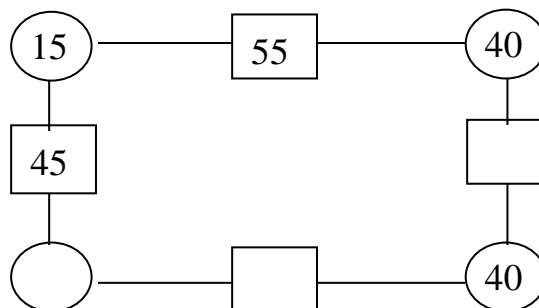
(1 mark)

**(b)** What is its perimeter?

.....

(1 mark)

**3** The numbers in the two circles add up to the number in the square between them. Use this rule to complete the diagram below.



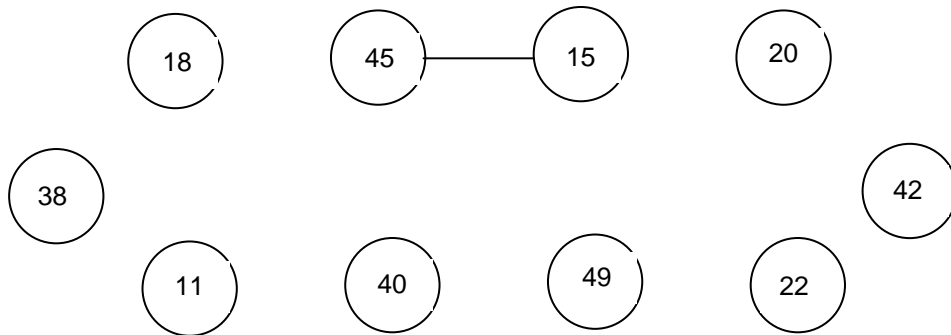
(3 marks)

4 Two consecutive numbers have a sum of 43. What are they? (Consecutive numbers are numbers that follow on from each other e.g. 3 and 4, 78 and 79).

.....  
(1 mark)

**Section B: You must not use a calculator for these questions.**

5 Draw lines to join every pair of numbers that add to make 60.  
One is done as an example.



(2 marks)

6 Work out the following. Show your working as necessary.

(a)  $7 \times 6 =$

.....  
(1 mark)

(b)  $32 \div 8 =$

.....  
(1 mark)

(c)  $27 - 5 \times 4 =$

.....  
(1 mark)

(d)  $45 \div 9 + 8 =$

.....  
(1 mark)

(e)  $3 \times 4 + 49 \div 7 =$

.....  
(2 marks)

7 Find the next term in each of the following sequences:

(a) 50, 44, 38, 32, .....

(1 mark)

(b) 5, 8, 11, 14, .....

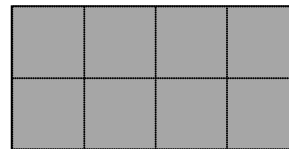
(1 mark)

(c) 2, 6, 18, 54, .....

(1 mark)

8 The grids in this question are **centimetre square** grids.

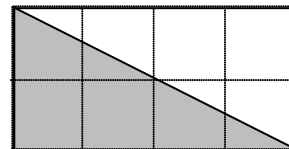
(a) What is the area of this shaded rectangle?



Not to scale

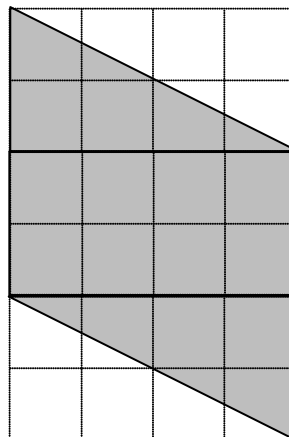
.....

(b) What is the area of this shaded triangle?



.....

(c) What is the area of this shaded shape?



.....

(3 marks)

9 Work out each of the following:

**(a)** two hundred and sixteen add five hundred and sixty eight

(2 marks)

**(b)**  $29 + 342 + 5067$

(2 marks)

**(c)**  $1901 - 820$

(2 marks)

**(d)**  $27 \times 43$

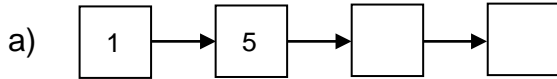
(2 marks)

**(e)**  $252 \div 7$

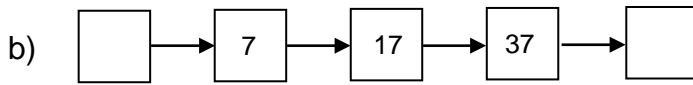
(2 marks)

**10** The rule for the number sequences below is 'double and add 3'.

Find the missing numbers



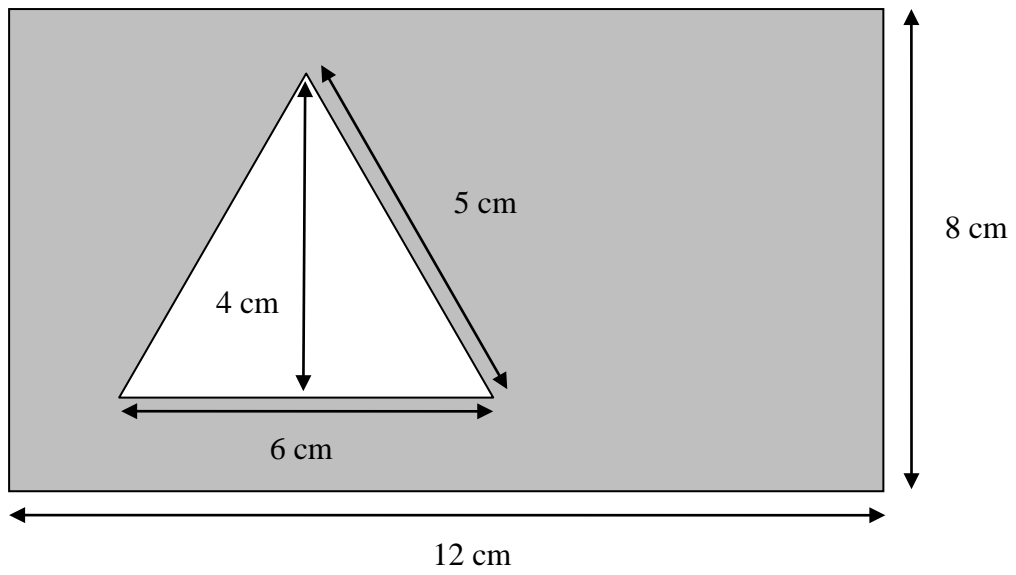
(1 mark)



(2 marks)

11. Find the **shaded area** in the diagram below.

Not drawn to scale



(3 marks)

Total marks 40

## 7C Half Term Assessment 2

The assessment will last a total of **40 minutes**.

You will be given 10 minutes to work on Section A ONLY using a calculator.

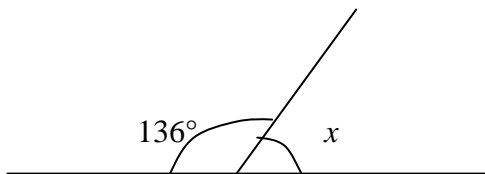
You will then have 30 minutes in which to complete the rest of the paper. During this time you must NOT use a calculator but you may work on both Sections A and B.

**Section A: You may use a calculator for these questions.**

**1** Work out the size of angles  $x$ ,  $y$  and  $z$ . The diagrams are not drawn to scale.

**Show your working.**

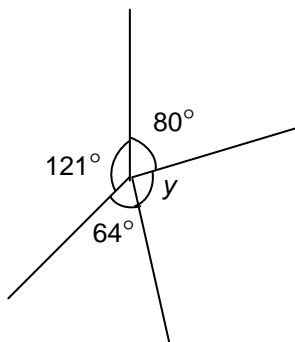
**(a)**



.....

(2 marks)

**(b)**

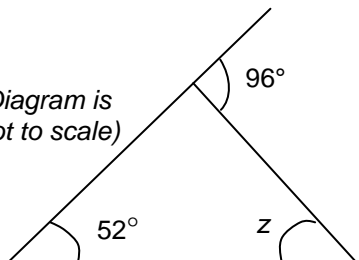


.....

(2 marks)

**(c)**

*(Diagram is not to scale)*



.....

(3 marks)

**2 (a)** Find the *mean* of the numbers  
6 11 3 14 11 8 5 10.

.....  
(2 marks)

**(b)** Here are four number cards.

The *mean* is 7.

What is the missing number?

5	10	7	?
---	----	---	---

.....  
(1 mark)

**Section B: You must not use a calculator for these questions.**

**3 (a)** Write a fraction that is less than 1 but greater than  $\frac{1}{2}$ .

.....  
(1 mark)

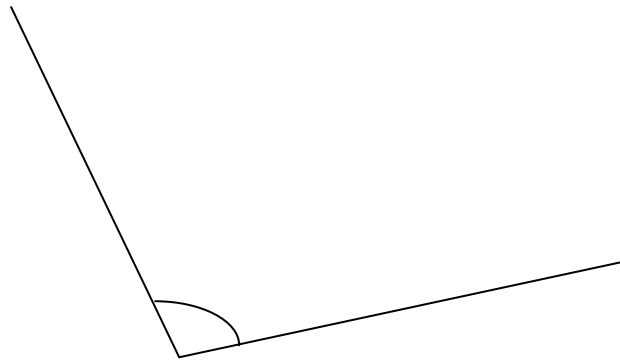
**(b)** Simplify these fractions as far as possible

**i)**  $\frac{10}{15}$  .....

**ii)**  $\frac{35}{42}$  .....

(2 marks)

4 (a) Estimate the size of the angle below. Give a reason for your answer.



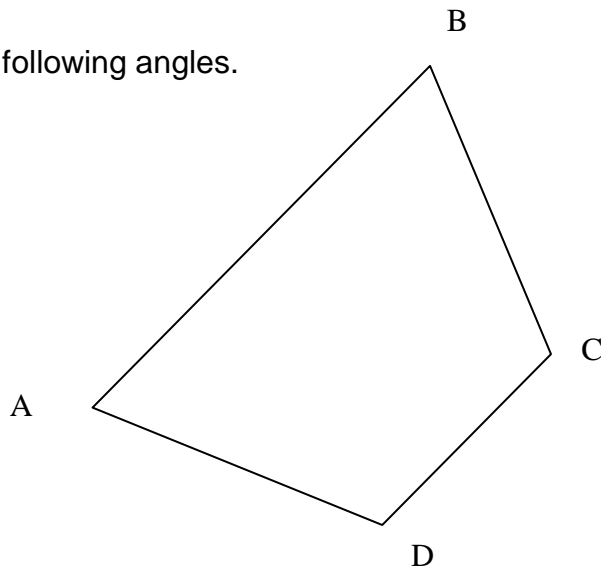
..... because .....

.....

.....

(2 marks)

(b) Measure the following angles.



i)  $\hat{A}BC$

.....  
(1 mark)

ii)  $\hat{A}DC$

.....  
(1 mark)





**5 (a)** Work out  $\frac{1}{4}$  of £20

.....  
(1 mark)

**(b)** Work out  $\frac{1}{7}$  of £63

.....  
(1 mark)

**6** Simplify the following expressions where possible. If you cannot simplify, write down the expression given.

**(a)**  $5x - 2x$

.....  
(1 mark)

**(b)**  $9m + 3m$

.....  
(1 mark)

**(c)**  $4a + 2b$

.....  
(1 mark)

**(d)**  $18t - 7t$

.....  
(1 mark)

**7 (a)** Convert these fractions into decimals.

**i)**  $\frac{1}{4}$

.....  
(1 mark)

**ii)**  $\frac{11}{25}$

.....  
(1 mark)

**(b)** Convert these decimals to percentages.

**i)** 0.52

.....  
(1 mark)

**ii)** 0.6

.....  
(1 mark)

**8** Two girls record their scores from a weekly spelling test. Their results are shown in the table below.

<b>Chloe</b>	8	10	9	7	9	10	6
<b>Lucie</b>	6	12	8	8	6	11	7

**(a)** Work out the median for Chloe.

.....  
(2 marks)

**(b)** Work out the range for Chloe.

.....  
(1 mark)

The median for Lucie is 8 and her range is 6.

**(c)** Compare the scores of Chloe and Lucie by completing these sentences.

The medians show that .....

.....

.....

The ranges show that .....

.....

.....

(2 marks)



9 (a) Work out  $\frac{2}{7} + \frac{4}{7}$ .

.....  
(1 mark)

(b) Work out  $\frac{3}{4} + \frac{1}{8}$ .

.....  
(2 marks)

(c) Work out  $\frac{7}{12} - \frac{1}{3}$ .

.....  
(2 marks)

10(a) Let  $y = 4x$ . Find the value of  $y$  when  $x = 6$ .

.....  
(1 mark)

(b) Let  $C = 5d - 3$ . Find the value of  $C$  when  $d = 7$ .

.....  
(2 marks)

Total 40

### 7C Half Term Assessment 3

The assessment will last a total of **40 minutes**.  
You will be given 10 minutes to work on Section A ONLY using a calculator.  
You will then have 30 minutes in which to complete the rest of the paper. During this time you must NOT use a calculator but you may work on both Sections A and B.

**Section A: You may use a calculator for these questions.**

**1** There are 15 players in a rugby team and there are 207 boys in year 7 of a school.

**(a)** How many teams of 15 can be formed?

.....  
(2 marks)

**(b)** How many boys will be left over?

.....  
(1 mark)

**2** For the line  $y = x + 13$ , find the  $y$  value when:

**(a)**  $x = 10$

.....  
(1 mark)

**(b)**  $x = 22$

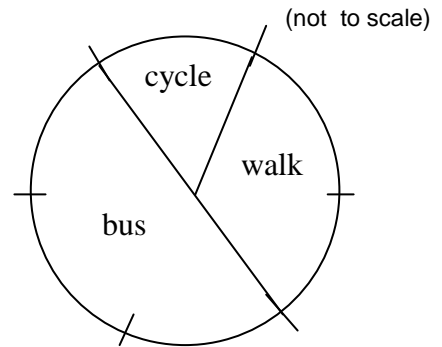
.....  
(1 mark)

**3** £40 can be exchanged for 74 dollars. How many dollars can be exchanged for £160?

.....  
(2 marks)

4 Lorna did a survey on how pupils get to school. The pie chart shows her results. (It can be assumed that the marks on the edge split the circle into even pieces).

(a) What fraction of the pupils walk to school?



(1 mark)

(b) 420 pupils take part in the survey. How many pupils walk to school?

.....  
(2 marks)

**Section B: You must not use a calculator for these questions.**

5 (a) Write down the first five multiples of 5.

.....  
(1 mark)

(b) Write down all the factors of 20.

.....  
(2 marks)

Look at this list of numbers

4, 15, 7, 36, 21

(c) Write down a **prime** number from the list?

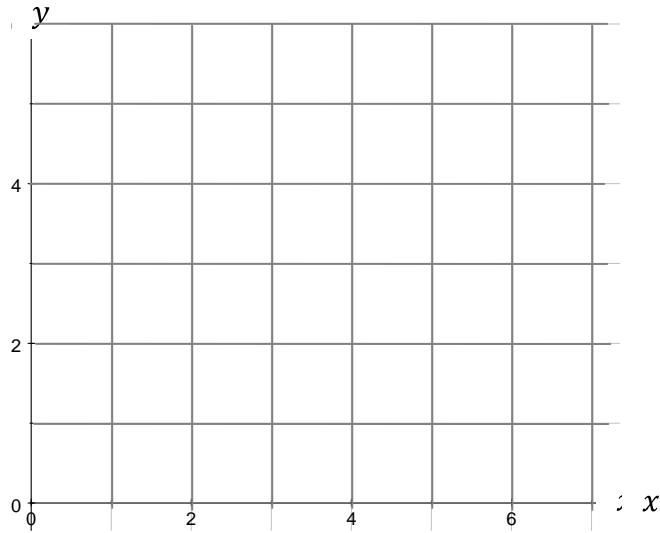
.....  
(1 mark)

(d) Write down a **square** number from the list?

.....  
(1 mark)

6 Plot these points. Join them up in order as you go.

(1, 2) (3, 2) (3, 3) (2, 3) (2, 5) (1, 5) (1, 2)



(3 marks)

7 Arrange these numbers in order of size, smallest to largest.

(a) 7.643, 6.41, 7.65

.....  
(1 mark)

(b) 8.094, 8.049, 8.1

.....  
(1 mark)

8 Complete the following:

$$260 \div \boxed{\phantom{000}} = 2.6$$

(1 mark)

9 Work out each of the following:

(a)  $4.81 + 2.34$

(2 marks)


**(b)**  $9.3 - 5.67$  (2 marks)


**10** Suppose you roll an ordinary die with sides numbered 1, 2, 3, 4, 5, 6.

Find the probability that you will roll

**(a)** a 6

.....  
(1 mark)

**(b)** a number less than 3

.....  
(1 mark)

**(c)** a 7

.....  
(1 mark)

**11** A class of 30 year 7 pupils had a history test. Their marks are given below.

12 20 32 8 25 15 30 17 21 31  
6 22 18 26 17 12 9 32 22 25  
17 5 20 32 31 28 27 13 28 17

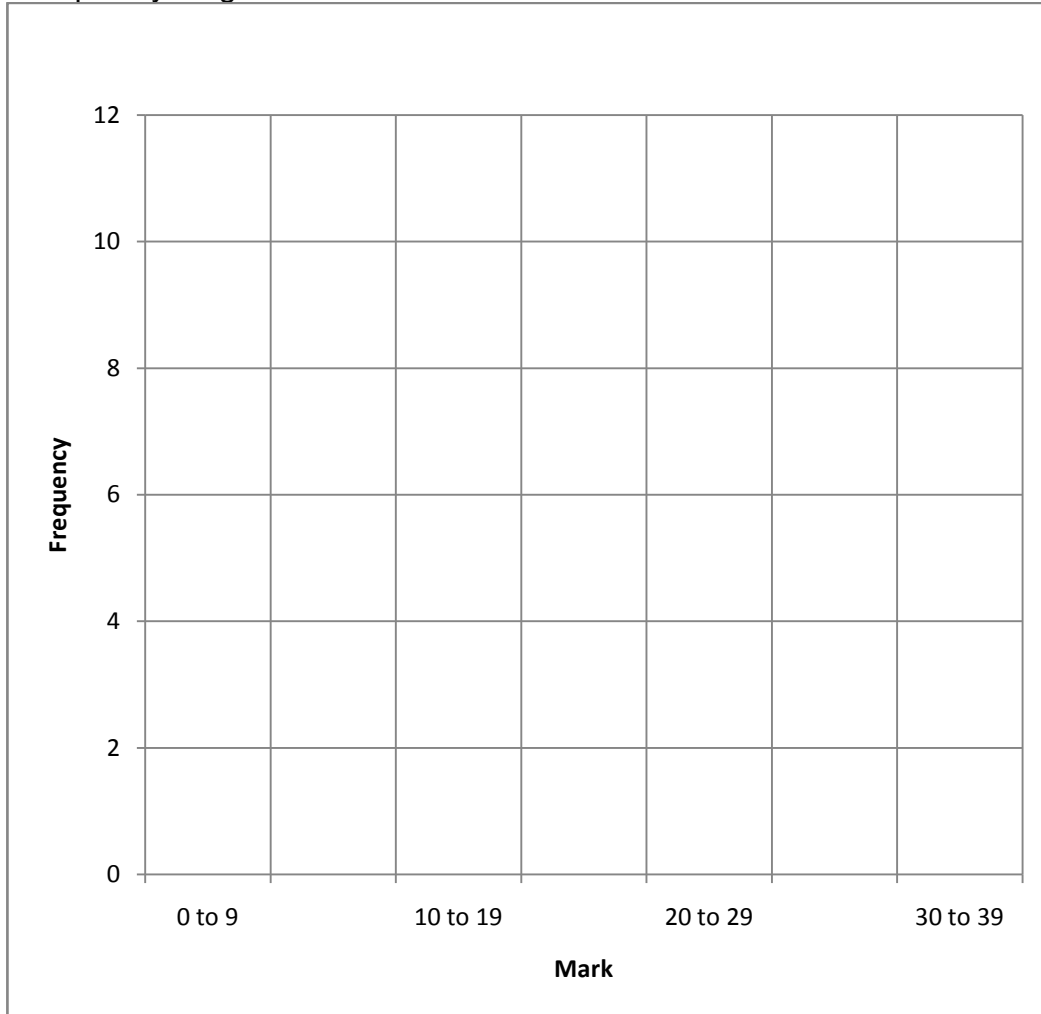
**(a)** Complete the frequency table below.

Mark	Tally	Frequency
0 to 9		
10 to 19		
20 to 29		
30 to 39		

© OCR

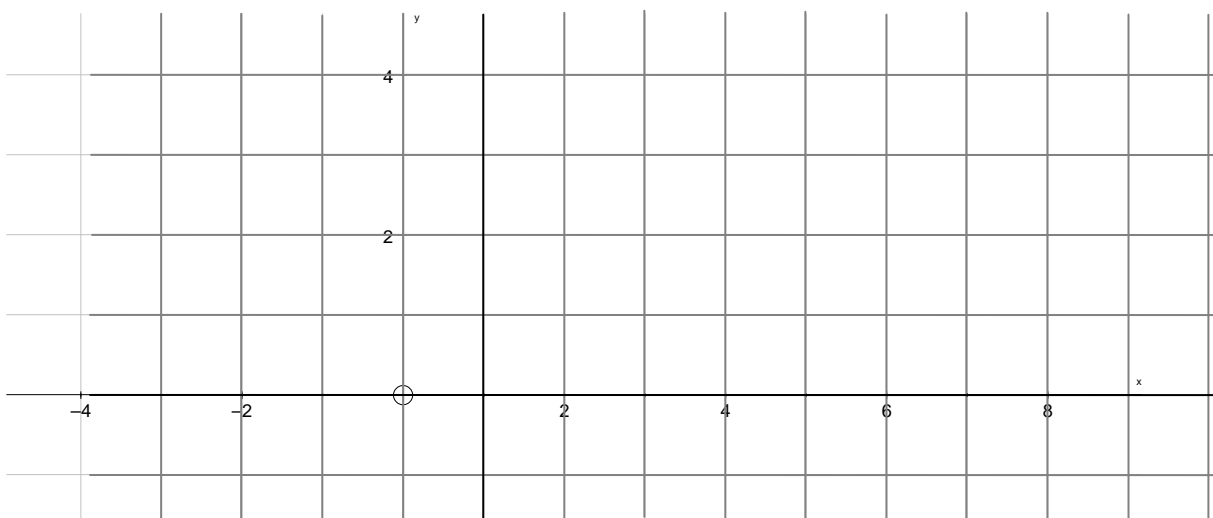
(3 marks)

**(b)** Draw a frequency diagram to illustrate the results.



(2 marks)

**12 (a)** Draw the lines  $y = 4$  and  $x = 3$  on the grid below. Label them clearly.



(2 marks)

**(b)** At what point do the two lines meet?

.....  
(1 mark)



**13** Work out each of the following:

**(a)**  $1.56 \times 7$  (2 marks)


**(b)**  $6.7 \div 4$  (2 marks)


--

**Total 40**

## 7C Half Term Assessment 4

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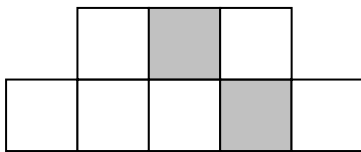
**Section A: You may use a calculator for these questions.**

**1** A car travels 36 miles on 4 litres of petrol. How far will it travel on 12 litres of petrol?

.....  
(2 marks)

**2 (a)** Look at the shape below.

What **percentage** of the shape is shaded?



.....

(1 mark)

**(b)** Which is bigger 15% of £250 or 20% of £190? You **must** show working to support your answer.

.....  
(3 marks)

3 Given that  $x = 3y + 2z$ , find the value of  $x$  when  $y = 12$  and  $z = 7$ .

.....  
(2 marks)

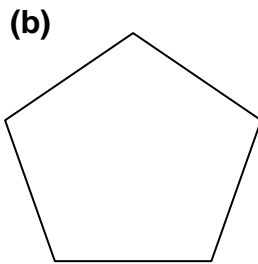
4 As a decimal  $\frac{3}{8}$  is 0.375. What is  $\frac{7}{8}$  as a decimal?

.....  
(2 marks)

**Section B: You must not use a calculator for these questions.**

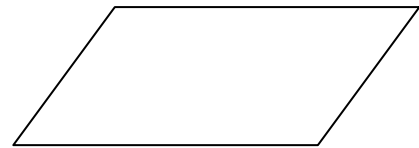
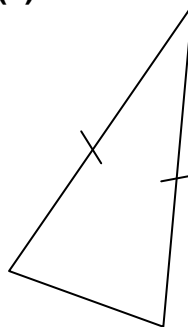
5 Name the following polygons. Give the special names of any quadrilaterals and triangles.

(a)



(b)

(c)



.....

(3 marks)

6 Arrange these temperatures in order of size, coldest first.

5°C, -3°C, -15°C, 8°C, 0°C

.....  
(1 mark)

**7** Using the rectangle WXYZ, answer the following questions.

(a) Name a side parallel to WZ.

.....  
(1 mark)

(b) Name a horizontal side.

.....  
(1 mark)

(c) Name a side perpendicular to WZ.

.....  
(1 mark)



**8** One day the temperature is 7°C. That night the temperature is -3°C. What is the difference between the day and night temperatures?

.....  
(1 mark)

**9** Solve the equations below.

(a)  $x + 6 = 15$

.....  
(1 mark)

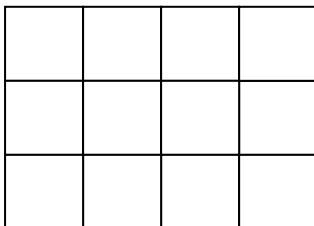
(b)  $6x = 18$

.....  
(1 mark)

(c)  $\frac{x}{8} = 7$

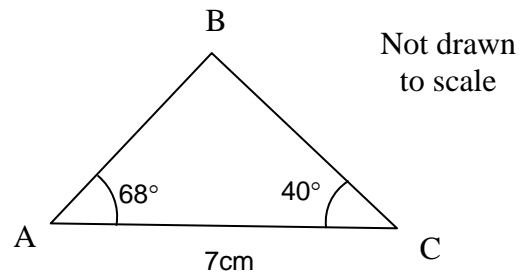
.....  
(1 mark)

**10** Shade in this diagram so that the ratio of shaded to white squares is 1:3.



(2 marks)

**11(a)** Use a protractor and a ruler to draw triangle ABC accurately.



**(b)** What is the length of the side AB?

(3 marks)

.....  
(1 mark)

**12** Work out the following:

**(a)**  $-5 + 7$

.....  
(1 mark)

**(b)**  $-3 - 6$

.....  
(1 mark)

**(c)**  $4 - 10 + 2$

.....  
(1 mark)

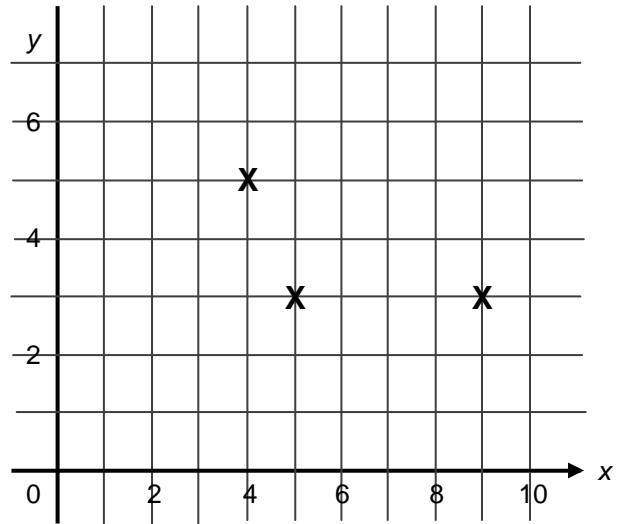
**13** There are 18 boys and 15 girls in a class. Write down the ratio of boys to girls in the class. Give your answer in its simplest form.

.....  
(2 marks)

**14** The diagram shows the vertices of a parallelogram.

a) Mark **two** possible positions for the fourth vertex.  
(2 marks)

b) Write down the coordinates of the two points you have just marked on to the diagram.  
(1 mark)



..... and .....

(1 mark)

**15** Multiply out the following expressions.

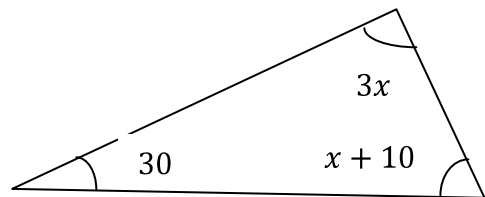
(a)  $7(x + 6)$

.....  
(1 mark)

(b)  $9(2x - 5)$

.....  
(1 mark)

**16(a)** For the triangle below, write down an equation in terms of  $x$ .



.....  
(1 mark)

(b) Solve the equation to find the value of  $x$ .

.....  
(2 marks)

**Total 40**