

## 7S 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** Here is a sequence:

134      153      172      191      210

**(a)** Write down the rule for this sequence.

.....  
(1 mark)

**(b)** Here is another sequence. The rule is **subtract 17**.

Write the next two numbers in the sequence.

95      78      61      .....      .....

(1 mark)

**(c)** The next sequence has the rule **multiply by 3**. Find the missing numbers.

.....      .....      36      108      324      .....

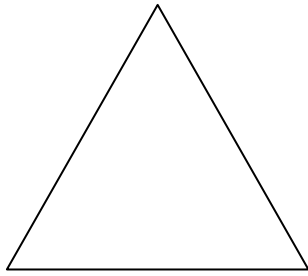
(2 marks)

**2** Complete the table:

Length in cm	Length in mm
6	
8.5	
	107

(3 marks)

3 Here is an equilateral triangle. All the sides are exactly the same length. Measure the length of one of the sides and work out its perimeter.



..... cm  
(2 marks)

4 The diagram shows part of a number grid. Fill in the missing numbers.

632	633		
622			625
	613		

(1 mark)

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

5 Simon starts to write down a sequence of numbers. His rule is:

**add 10 each time**

(a) Write down the next two numbers in his sequence.

210    220    230    .....    .....

(1 mark)

Simon makes a different sequence starting at 340. His rule is

**subtract 20 each time**

(b) Write down the next two numbers in his sequence.

340    320    300    .....    .....

(1 mark)

6 (a) Write the number **eight hundred and forty seven** in figures.

.....  
(1 mark)

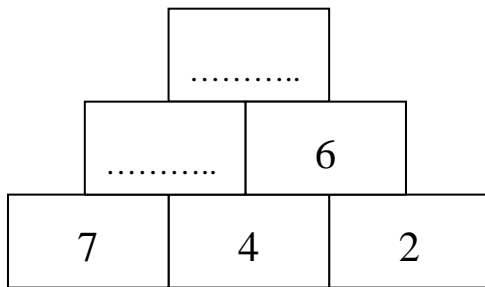
(b) Write the number **509** in words

.....  
(1 mark)

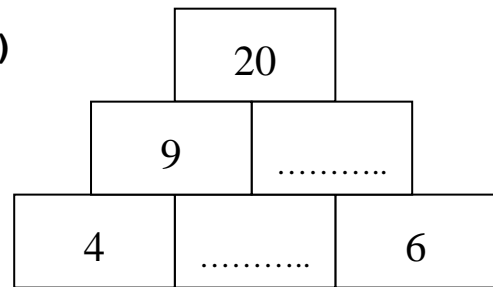
7 In these number pyramids, a missing number is found by adding together the numbers on the two bricks below.

Complete these number pyramids.

(a)



(b)



(2 marks)

8 Work out  $527 - 155$ .

.....  
(2 marks)

9 Work out  $657 + 395$ .

.....  
(2 marks)

10 (a) Write 7600 correct to the nearest thousand.

.....  
(1 mark)

(b) Write 252 correct to the nearest hundred.

.....  
(1 mark)

(c) Which of these numbers give 70 when rounded to the nearest ten? Put a circle around the correct numbers.

65      69      75      80      73

(2 marks)

11 Measure accurately the lengths of these lines in centimetres.

(a)



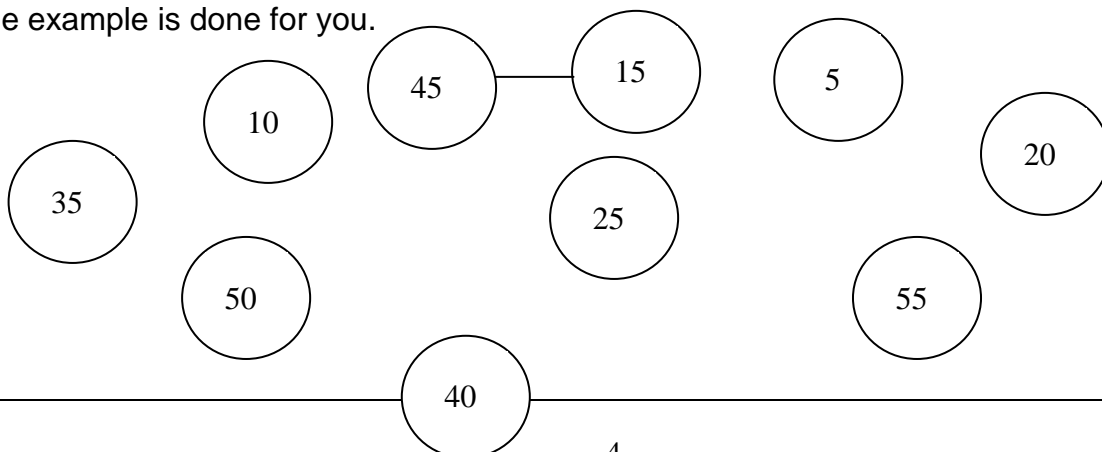
$a =$  .....  
(1 mark)

(b)



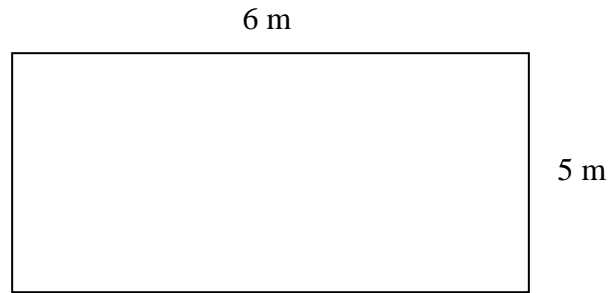
$b =$  .....  
(1 mark)

12 Draw lines to join up every pair of numbers that add to make 60.  
One example is done for you.



(2 marks)

13 Here is a plan of Mr Lawrence's garden.



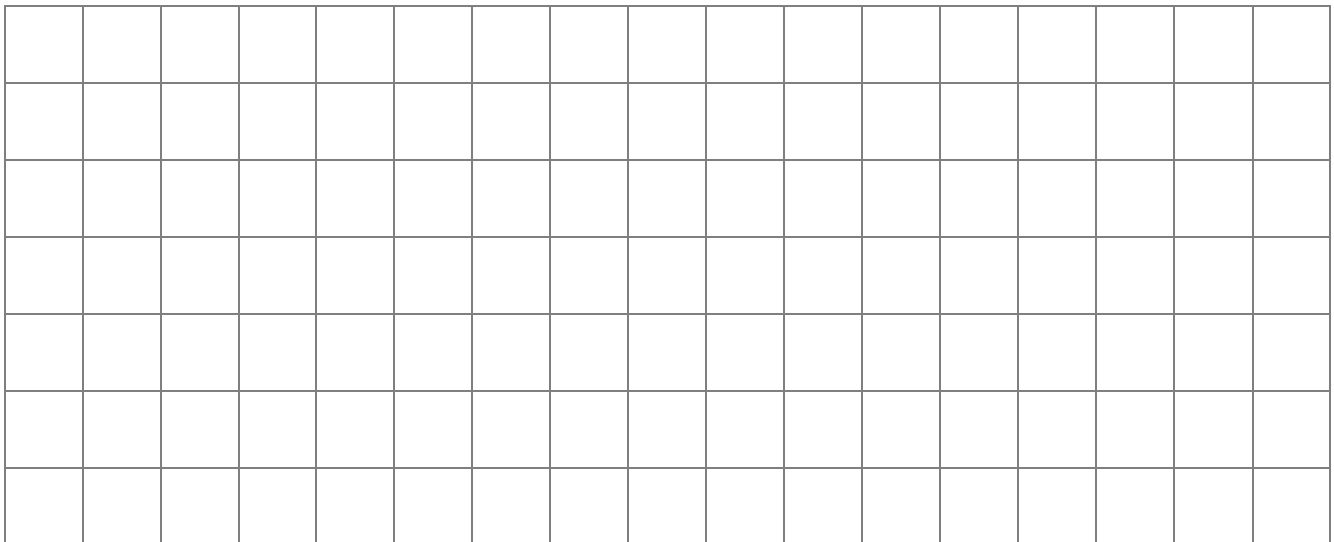
(a) (i) Find the perimeter of Mr Lawrence's garden.

.....  
(1 mark)

(ii) Find the area of Mr Lawrence's garden.

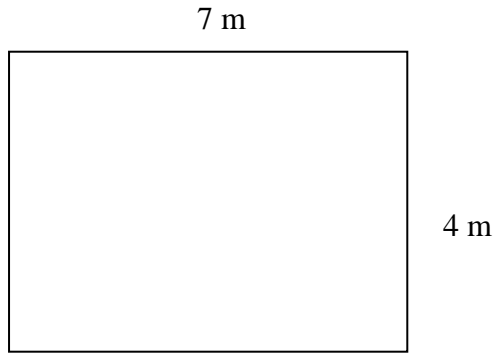
.....  
(2 marks)

(b) Mr Cumming has a rectangular garden with the same area as Mr Lawrence's garden. Draw a **different** rectangle with the same area as Mr Lawrence's garden.



(1 mark)

(c) Here is a plan of Mr Wood's garden.



Is the perimeter of Mr Wood's garden bigger than Mr Lawrence's garden?

Circle

Yes

No

Explain your answer.

.....

.....

.....

(1 mark)

**14** Write in the missing numbers.

(a) .....  $\times$  4 = 28

(1 mark)

(b) 3  $\times$  ..... = 27

(1 mark)

**15** Calculate:

(a)  $39 \times 3$

(1 mark)

(b)  $76 \div 4$

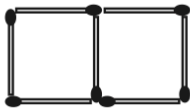
(1 mark)

16 Kyle is making matchstick patterns:

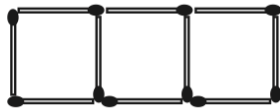
**Pattern 1**



**Pattern 2**



**Pattern 3**



**Pattern 4**

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(a) How many **more** matches will Kyle need to make pattern 4?

.....  
(1 mark)

(b) How many matches **altogether** will Kyle need to make pattern 5?

.....  
(1 mark)

(c) How many matches will Kyle need to make pattern 8?

.....  
(1 mark)

Total marks 40

**7S 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.

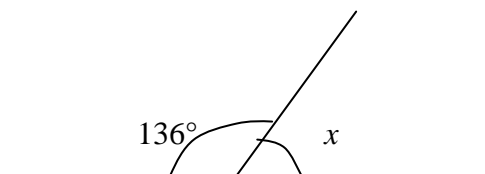
You will then have 30 minutes in which to complete the rest of the paper. During this time you must NOT use a calculator but you may work on both Sections A and B.

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

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

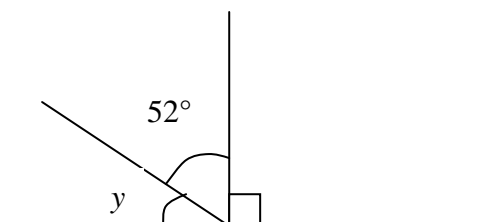
**Show your working.**

**(a)**



.....  
(2 marks)

**(b)**



.....  
(3 marks)



2 Jessica and Sophie's scores in the weekly class spelling test are shown below:

Jessica	Sophie
6	10
5	4
7	9
7	8
5	9
7	8
8	8

(a) What is Jessica's modal score?

.....  
(1 mark)

(b) What is the range of Jessica's scores?

.....  
(2 marks)

Sophie's mode is 8 and her range is 6.

(c) Who scored the best marks? Give a reason for your answer.

.....  
.....  
.....  
(1 mark)

(d) Whose marks were most varied? Give a reason for your answer.

.....  
.....  
.....  
(1 mark)

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

3



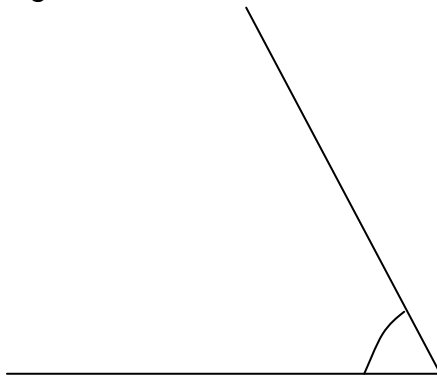

(a) Write down the fraction of the shape that is shaded.

.....  
(1 mark)

(b) Write down the fraction that is not shaded.

.....  
(1 mark)

4 (a) Measure the angle.



.....  
(1 mark)

(b) Draw an angle of  $30^\circ$  in the space below. Label the angle clearly.



(2 marks)

5 Complete the equivalent fractions.

(a)  $\frac{1}{2} = \frac{\quad}{8}$

(1 mark)

(b)  $\frac{3}{5} = \frac{\quad}{15}$

(1 mark)

(a)  $\frac{8}{9} = \frac{32}{\quad}$

(1 mark)

6 Aaron surveyed 28 teachers in his school to find out the colour of their car. His results are shown below:

redredsilver silverred green black white red white red silver red  
white white red silver red black red white silver silver white black  
red redsilver

(a) Complete the tally chart to show Aaron's results. (3 marks)

Colour of car	Tally	Frequency
Red		
White		
Silver		
Black		
Green		

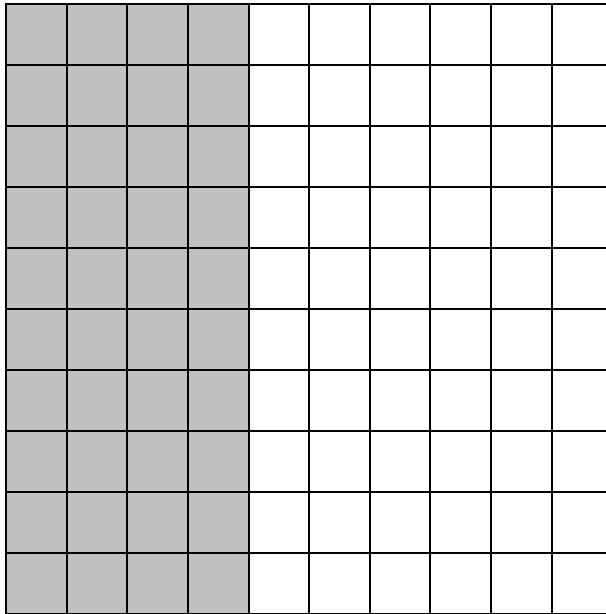
(b) What is the modal colour of car?  
.....  
(1 mark)

7 Ellen is standing in a wood facing east. She turns clockwise through 3 right angles. In which direction is she now facing?

.....  
(1 mark)

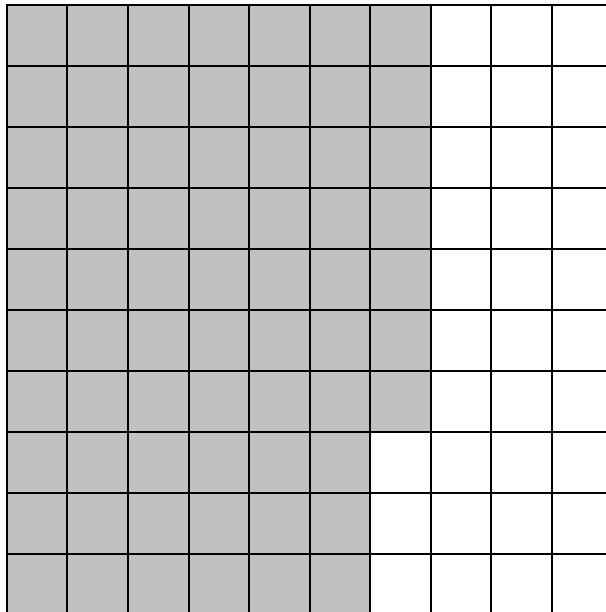
**8** Each square is divided into 100 squares.  
Write the percentage shaded.

**(a)**



.....  
(1 mark)

**(b)**



.....  
(1 mark)

9 (a) Work out  $\frac{1}{2}$  of 12.

.....  
(1 mark)

(b) Work out  $\frac{1}{4}$  of 32.

.....  
(1 mark)

(c) Work out  $\frac{1}{3}$  of 24.

.....  
(1 mark)

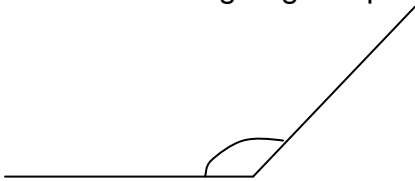
10(a) Adam has a packet of biscuits. He eats 50% of the biscuits.  
What percentage of the biscuits does he have left?

.....  
(1 mark)

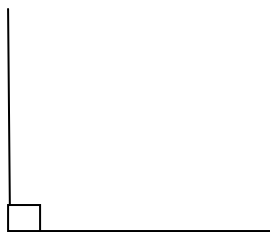
(b) Rachel has a bar of chocolate. She has 70% of the bar left.  
What percentage has she eaten?

.....  
(1 mark)

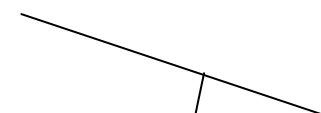
11 Match the following angles up with the correct descriptions.



This is an acute angle.



This is an obtuse angle.



This is a right angle.

(2 marks)

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

**(a)**  $b + b + b + b$

.....  
(1 mark)

**(b)**  $2x + 3x$

.....  
(1 mark)

**(c)**  $10a - 5a$

.....  
(1 mark)

**(d)**  $7y - 8$

.....  
(1 mark)

**13** Complete the table.

Fraction	Percentage
$\frac{1}{2}$	
$\frac{1}{4}$	
	75%
	10%

(4 marks)

**Total 40**

### 7S 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** Charlotte buys 3 pens at 78p each.

**(a)** How much does she spend altogether? State the units on your answer clearly.

.....  
(2 marks)

**(b)** She pays with a £5 note. How much change does she receive? State your units clearly.

.....  
(2 marks)

**2** Write down the value of the following:





**(a)**  $7^2$

.....  
(1 mark)

**(b)**  $13^2$

.....  
(1 mark)

3 The pictogram shows the favourite sport of each person at a youth club.

Sport	Frequency
Football	
Hockey	
Cricket	
Athletics	
Swimming	

Key :  represents 2 people  
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(a) How many people chose football as their favourite sport?

.....  
(1 mark)

(b) Five people chose swimming as their favourite sport. Fill in the pictogram to show this number.

(1 mark)

(c) How many people attend the youth club in total?

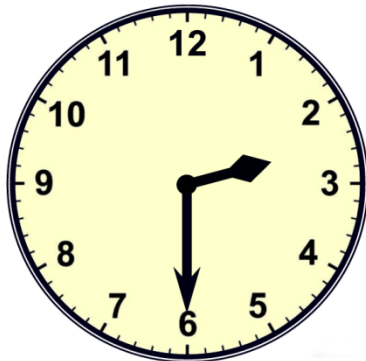
.....  
(2 marks)



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

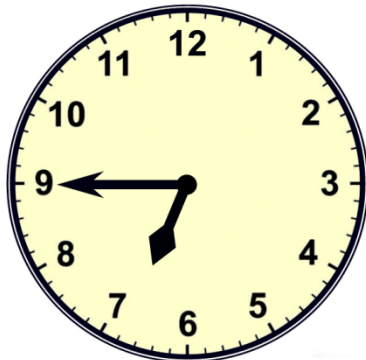
4 Write down the times on these clocks.

(a)



..... (1 mark)

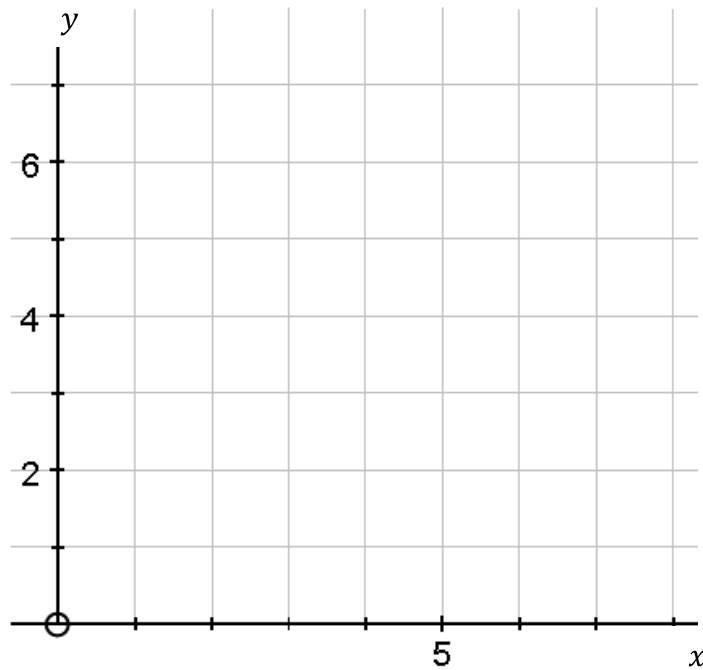
(b)



..... (1 mark)

5 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)

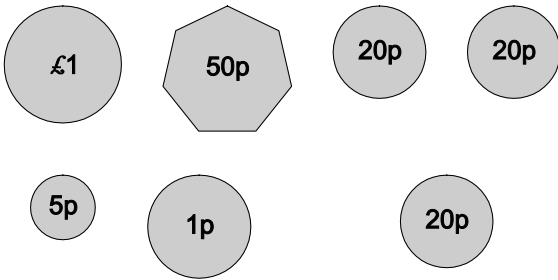
6 (a) Write down the first five multiples of 5.

.....  
(1 mark)

(b) Write down all the factors of 12.

.....  
(2 marks)

7 You have the following coins.  
Which of these coins make exactly £1.10?



.....  
(2 marks)

8 The following words can all be used to describe the probability of an event happening.

**Impossible    Unlikely    Even chance    Likely    Certain**

Use **one** of these words to describe the probability of the events below.

(a) August will follow July.

.....  
(1 mark)

(b) A newly born baby will be a girl.

.....  
(1 mark)

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

**(a)**  $£3.64 + £5.82$  (2 marks)


**(b)**  $£7.29 - £3.54$  (2 marks)


**10** Work out the following:

**(a)**  $34 \times 10$

..... (1 mark)

**(b)**  $645 \times 1000$

..... (1 mark)

**(c)**  $13000 \div 100$

..... (1 mark)

**11** Suppose you roll an ordinary die with numbers 1, 2, 3, 4, 5, 6.

Find the probability that you roll

**(a)** a 6

..... (1 mark)

**(b)** an even number

..... (1 mark)

**(c)** a 7

..... (1 mark)

**12** Here is a railway timetable for trains from Victoria Town to Alberton.  
The arrows show that a train does **not** stop at certain stations.

<b>Victoria Town</b>	0932	0954	1022	1038	1054
<b>Ellsburton</b>	0948	1010	1038	1054	1110
<b>Highworth</b>	0953	1015	↓	↓	1115
<b>Bulledown</b>	0958	1020	↓	↓	1120
<b>Partock</b>	1004	1026	↓	↓	1126
<b>Great Harewood</b>	1016	1038	1058	↓	1138
<b>Heale</b>	1022	1044	1104	↓	1144
<b>Alberton</b>	1034	1056	1116	1132	1156

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- (a) Sunil gets the 1058 train from Great Harewood.  
What time does this train arrive at Alberton?

.....  
(1 mark)

- (b) Bill must get to Alberton by 1110.  
What is the time of the latest train he can catch from Victoria Town?

.....  
(1 mark)

- (c) How long does it take the 1054 from Victoria Town to get to Heale?

.....  
(2 marks)



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

**(a)**  $26 \times 67$  (2 marks)


**(b)**  $952 \div 7$  (2 marks)


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**Total 40**

## 7S Half Term Assessment 4

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

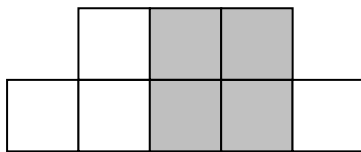
You will be given 10 minutes to work on Section A ONLY using a calculator.

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 (a) Look at the shape below.

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



(1 mark)

(b) Work out 25% of 180.

.....  
(2 marks)

(c) Work out 10% of 390.

.....  
(2 marks)

2 A car travels 36 miles on 2 litres of petrol. How far will it travel on 6 litres of petrol?

.....  
(2 marks)

**3** An electrician charges £7 an hour plus a £20 call out fee. This is represented by the equation below.

$$\text{Total cost} = 7 \times \text{numbers of hours} + 20$$

(a) What is the total cost if the job takes 7 hours?

.....  
(2 marks)

(b) How many hours does a job take if the total cost is £41?

.....  
(1 mark)

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

**4** Work out the following:

(a) a half of 28

.....  
(1 mark)

(b) a quarter of 44

.....  
(1 mark)

(c) a quarter of 232

.....  
(1 mark)

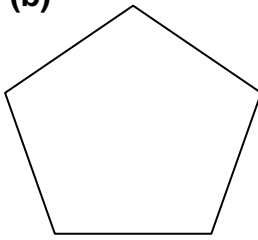
**5** Arrange these temperatures in order of size, coldest first.

5°C, -2°C, 4°C, -3°C, 0°C

.....  
(2 marks)

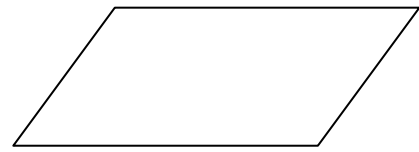
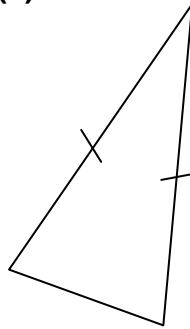
6 Name the following polygons. Give the special names of any quadrilaterals and triangles.

(a)



(b)

(c)



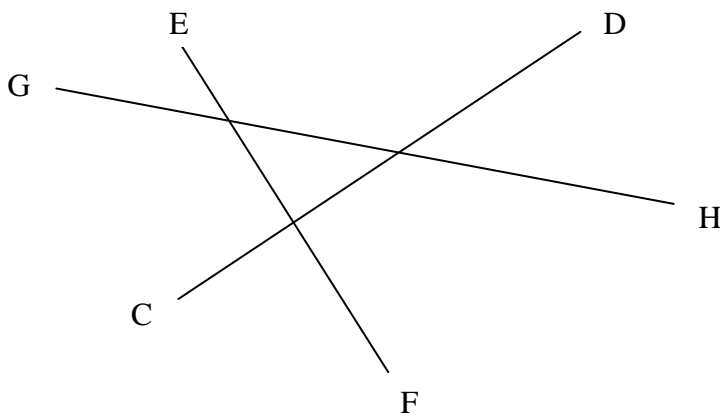
.....

(3 marks)

7 (a) Draw a vertical line and label it AB.

(b) Which of these lines is perpendicular to CD?

(1 mark)



.....

(1 mark)

8 One day the temperature is  $7^{\circ}\text{C}$ . That night the temperature is  $-3^{\circ}\text{C}$ . What is the difference between the day and night temperatures?

.....

(1 mark)



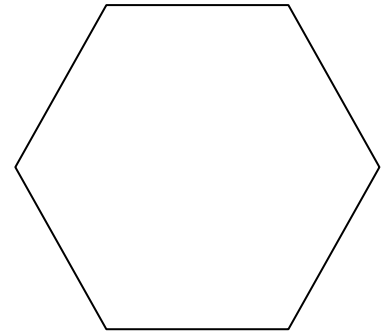
9 Look at the polygon on the right.

(a) Write down the number of sides.

.....  
(1 mark)

(b) Write down the number of corners.

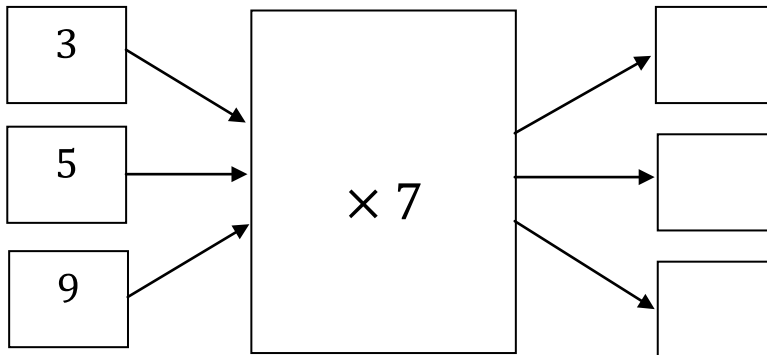
.....  
(1 mark)



(c) Mark on the polygon with arrows a set of parallel sides. (1 mark)

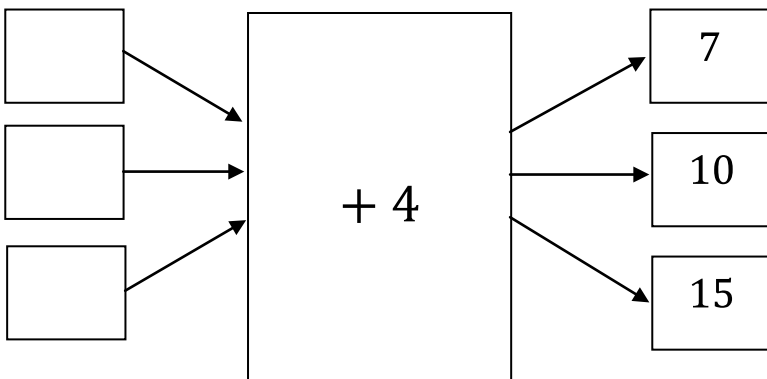
10 Complete the following function machines.

(a)



(2 marks)

(b)



(2 marks)

11



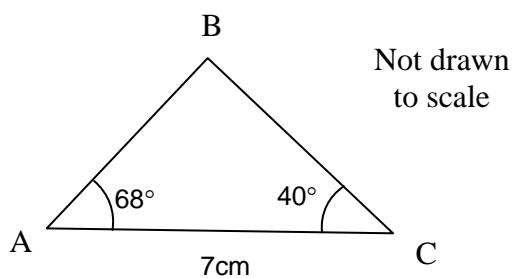
(a) Write down the ratio of hexagons to triangles.

.....  
(1 mark)

(b) Write down the ratio of triangles to hexagons.

.....  
(1 mark)

**12(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)

**13** Given that  $a = 2$ ,  $b = 3$ ,  $c = 5$ , find the value of:

**(a)**  $a + b$

.....  
(1 mark)

**(b)**  $7c$

.....  
(1 mark)

**(c)**  $\frac{24}{b}$

.....  
(1 mark)

**14** Billy is  $b$  years old. Write algebraic expressions to represent the age of each of the following people.

**(a)** Clara is 5 years older than Billy.

.....  
(1 mark)

**(a)** Daniel is 3 years younger than Billy.

.....  
(1 mark)

**(a)** Eve's age is 4 times that of Billy.

.....  
(1 mark)

**Total 40**

