

**YOUR NAME :** \_\_\_\_\_

## Summer Examinations Revision 2024

Exams start Monday 10<sup>th</sup> June 2024

### Lesson 2

#### 2.1 Starter

##### Example

**Question :** Divide 35 in the ratio 3 : 4

**Answer :** Note that there have to be  $3 + 4 = 7$  parts.

$$\frac{35}{7} = 5$$

So the ratio is  $3 \times 5 : 4 \times 5$   
which is 15 : 20

##### YouDo

( i ) Divide 18 in the ratio 4 : 5

( ii ) Divide 70 in the ratio 3 : 4

( iii ) Divide 20 in the ratio 2 : 3

( iv ) Divide 80 in the ratio 2 : 3 : 5

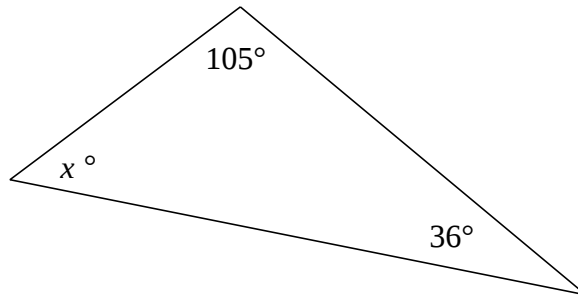
( v ) Divide 56 in the ratio 2 : 5 : 7

[ 10 marks ]

## 2.2 Exercise

Marks Available : 100

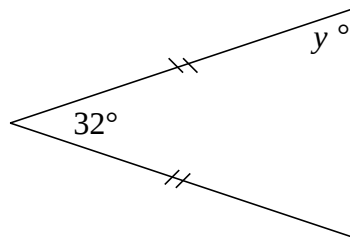
### Question 1



What is angle  $x$  ?

[ 4 marks ]

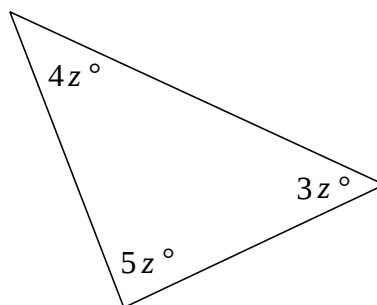
### Question 2



What is angle  $y$  ?

[ 4 marks ]

### Question 3



( i ) What is the value of  $z^\circ$  ?

( ii ) List the three angles of the triangle.

[ 7 marks ]

**Question 4**

Write down the next three terms in each of these Arithmetic Progressions;

( i )     1, 3, 5, 7, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

( ii )     2, 5, 8, 11, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

( iii )     117, 113, 109, 105, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

( iv )     10, 21, 32, 43, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

( v )     9, 7, 5, 3, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

[ 5 marks ]

**Question 5**

Showing full working, calculate

( i )

$$\frac{4}{5} - \frac{1}{3}$$

( ii )

$$\frac{9}{11} - \frac{2}{9}$$

( iii )

$$\frac{5}{7} - \frac{3}{10}$$

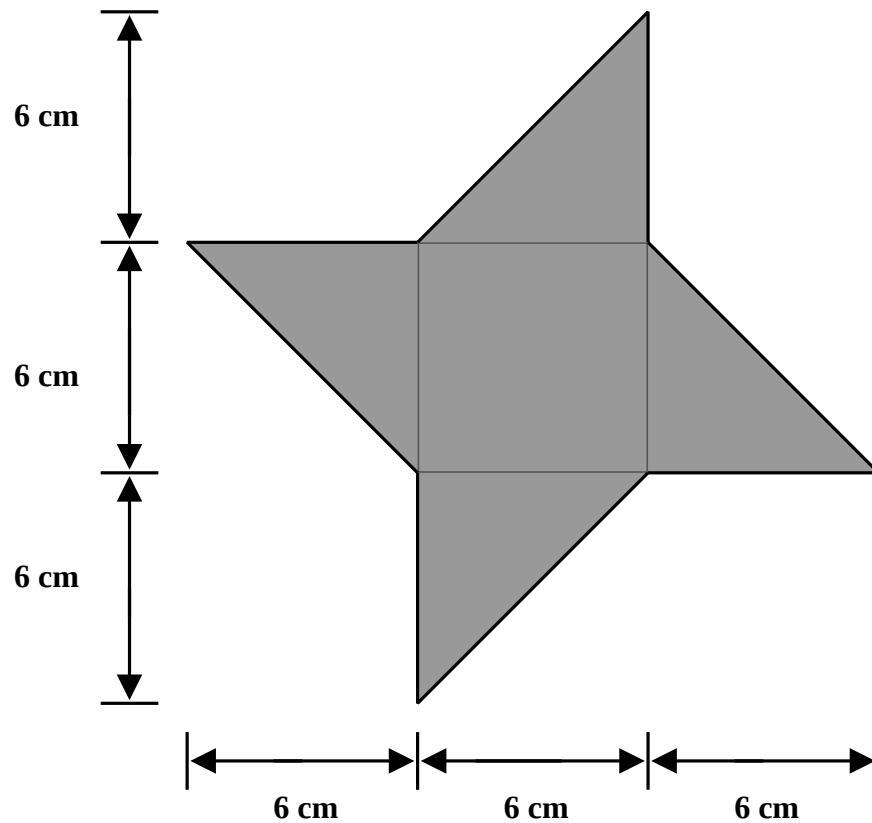
( iv )

$$\frac{7}{8} - \frac{2}{3}$$

[ 5 marks each = 20 marks ]

**Question 6**

What is the AREA (shown shaded) of this shape;



[ 5 marks ]

**Question 7**

- ( i )     What is half of  $130^\circ$  ?
- ( ii )    What is an eighth of  $200^\circ$  ?
- ( iii )    What is a quarter of  $500^\circ$  ?
- ( iv )    What is a fifth of  $360^\circ$  ?
- ( v )    What is a seventh of  $91^\circ$  ?

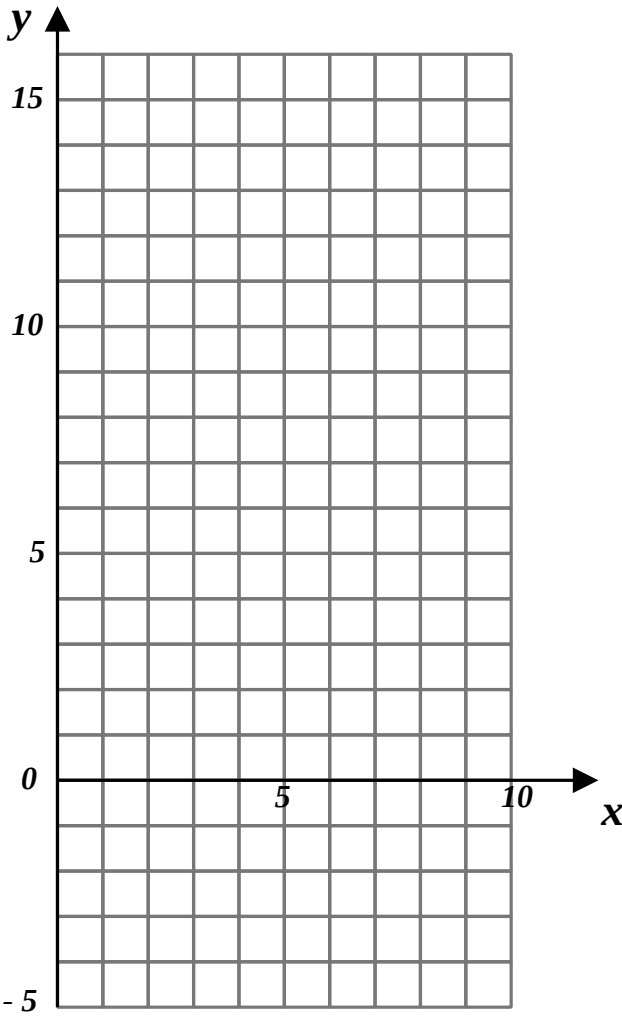
[ 10 marks ]

**Question 8**

**( a )** Complete this table

| $x$          | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|--------------|---|---|---|---|---|---|---|---|---|---|----|
| $y = 2x - 5$ |   |   |   | 1 |   |   |   |   |   |   |    |

**( b )** Use your table to plot the line with equation  $y = 2x - 5$



[ 10 marks ]

**Question 9**

What is the cost of twelve Energy Drinks at £1.35 each ?

[ 5 marks ]

### Question 10

- ( i )      Divide 20 sweets up in the ratio 2 : 3
- ( ii )      Divide 80 sweets up into the ratio 1 : 3
- ( iii )      Divide 99 sweets up in the ratio 2 : 7
- ( iv )      Divide 30 sweets up in the ratio 2 : 3 : 4 : 6
- ( v )      Divide 90 sweets up in the ratio 2 : 5 : 8

**[ 10 marks ]**

### Question 11

Solve these equations;

- (i)  $3x + 8 = 23$

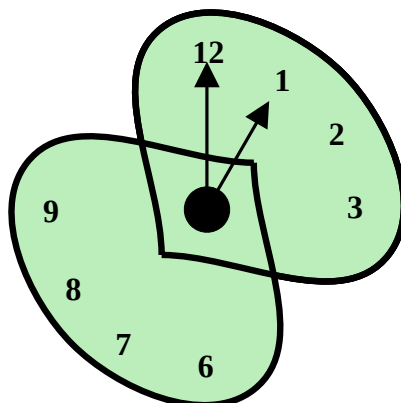
(ii)  $7x - 8 = 41$

(iii)  $20x + 45 = 105$

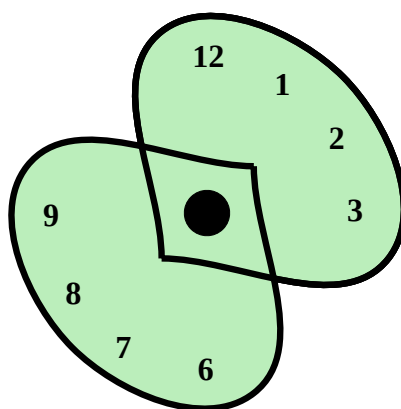
(iv)  $6x - 341 = 325$

**[ 10 marks ]**

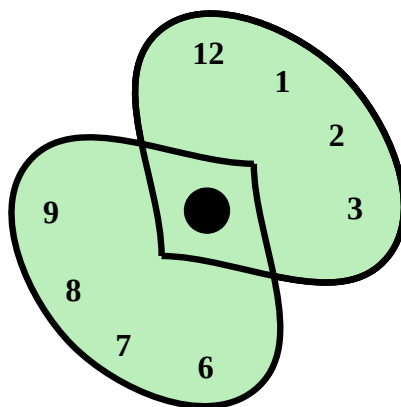
## Question 12



- ( i ) What is the angle between the hands of a clock at 1 pm ?



- ( ii ) Carefully draw the hands on the clock face when the time is 2.30 am.  
 ( iii ) What is the angle between the hands of a clock at 2.30 am ?



- ( iv ) Carefully draw the hands on the clock face when the time is 2.15 am.  
 ( v ) What is the angle between the hands of a clock at 2.15 am ?

[ 10 marks ]

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Teachers may obtain detailed worked solutions to the exercises by email from [mhh@shrewsbury.org.uk](mailto:mhh@shrewsbury.org.uk)