

# WEEK 4 TASKS

Don't assume that questions with more marks are more difficult. Multi-mark questions are usually designed to enable all students to gain some marks even if they sometimes are not able to finish them. The important thing is to attempt every question. Sometimes once you have made a start the maths that is required will reveal itself and underlining key words may help.

Remember: have a go at every question!

## **WEEK 4 TASK 1**

# One Marker Starters

Includes Summer 2017 – Summer 2024 Exam Papers



(Unless otherwise stated)

1

Change 6.5 kg into grams

6

Work out

$$20 \div (3 + 2)$$

2

Write down two factors of 35

7

Change 53 centimetres to millimetres

3

Write these numbers in order of size.  
Start with the smallest number

$\frac{1}{2}$       0.55      45%

8

Write 23% as a fraction

4

Write down the value of the 6  
in the number 16 007

9

Solve:  $\frac{y}{3} = 12$

5

Simplify  $4f - 2f + f$

10

Write 0.3 as a fraction

## WEEK 4 TASK 2



Estimated completion time = 30 minutes.

**Answer all questions.**

**Write your answers in the spaces provided.**

**You must write down all the stages in your working.**

- 1** For a football match,  
297 tickets were sold for £9.50 each.  
399 tickets were sold for £19.50 each.
- (a) Work out an estimate for the total amount of money paid for these tickets.  
You must show all your working.

£.....  
**(3)**

- (b) Is your answer to part (a) an underestimate or an overestimate?  
Give a reason for your answer.

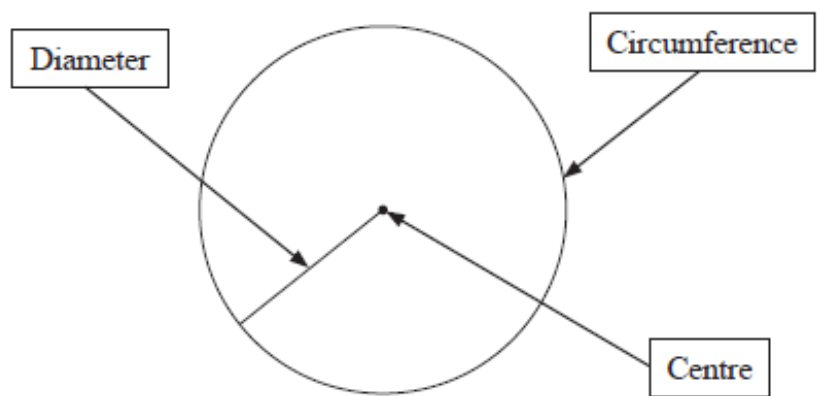
.....  
.....  
.....  
**(1)**

**(Total for Question 1 is 4 marks)**

- 2** Steve is buying a car.  
The car costs £12 000  
Steve pays 25% of the cost as a deposit.  
He pays the rest of the cost in 20 equal monthly payments.  
How much is each monthly payment?

£.....  
**(Total for Question 2 is 4 marks)**

3 Freddie adds labels to this diagram of a circle.



Explain why one of the labels is wrong.

.....

.....

(Total for Question 3 is 1 mark)

4 Some people watched a film at the cinema.  
number of adults : number of children = 2 : 5

(b) What fraction of these people were adults?

.....

(1)

On Friday,  
500 people watched a film at the cinema.  
70% of these people were children.  
On Saturday,  
720 people watched the film at the cinema.  
 $\frac{5}{8}$  of these people were children.

Kasim thinks more children watched the film on Friday than on Saturday.

(c) Is Kasim correct? You must show how you get your answer.

(3)

(Total for Question 4 is 4 marks)

- 5      $P = 2g + 4h$   
      (a) Work out the value of  $g$  when  $P = 38$  and  $h = 3$

$g =$  .....  
(2)

$V = 3r - q$

- (b) Work out the value of  $V$  when  $r = -3$  and  $q = 2$

$V =$  .....  
(2)

(Total for Question 5 is 4 marks)

- 6     Simplify      $19 + 5b + 4c - 7b + c$

.....  
(Total for Question 6 is 2 marks)

- \*7     Work out      $6.3 \times 2.4$

.....  
(Total for Question 7 is 3 marks)

8     Work out  $\frac{6}{7} \times \frac{5}{12}$   
Give your answer as a fraction in its simplest form.

.....  
(Total for Question 8 is 2 marks)

9     Work out  $\frac{3}{5} \div \frac{1}{6}$   
Give your answer as a mixed number.

.....  
(Total for Question 9 is 3 marks)

10    Chloe is making scrunchies.  
Chloe has a large number of hair bands.  
Each hair band costs 8p.  
She buys 100 g of wool for £3  
Chloe uses 1 hair band and 5 g of wool to make each scrunchy.  
She makes as many scrunchies as she can.  
Work out the total cost of each scrunchy that she makes.  
Give your answer in pence.

.....p  
(Total for Question 10 is 4 marks)

**TOTAL FOR PAPER IS 31 MARKS**



## **WEEK 4 TASK 3**

# One Marker Starters

Includes Summer 2017 – Summer 2024 Exam Papers



(Unless otherwise stated)

1

Change 2.7 kg into grams

6

Write the number five million  
in figures

2

Write  $\frac{7}{100}$  as a decimal

7

Write 0.3 as a percentage

3

Write 4.444 correct to the  
nearest whole number

8

Change 7.3 m into mm

4

Write brackets ( ) in this  
statement to make it correct

$$8 \times 2 + 6 = 22$$

9

Here is a list of four fractions

$$\frac{4}{16} \quad \frac{2}{8} \quad \frac{15}{60} \quad \frac{3}{9}$$

One of these fractions is **not** equivalent to  $\frac{1}{4}$

Write down this fraction

5

Simplify  $y + 3y - 2y$

10

Write 7829 to the nearest 1000



## **WEEK 4 TASK 4**

**Estimated completion time = 30 minutes.**

**Answer all questions.**

**Write your answers in the spaces provided.**

**You must write down all the stages in your working.**

- 1**    3 kg of flour costs £4.05  
5 kg of flour and 6 kg of sugar cost £11.85  
Work out the cost of 2 kg of flour and 5 kg of sugar.

£.....

**(Total for Question 1 is 4 marks)**

---

- 2**    Martha and Nabeel share £120  
Martha gets 72% of the money.  
She spends 30% of the money she gets.  
How much money does Martha have left?

£.....

**(Total for Question 2 is 3 marks)**

---

3     Here are the first five terms of a sequence.

3            8            13            18            23

Write down the ratio of the second term to the fourth term.  
Give your ratio in its simplest form.

.....  
(Total for Question 3 is 2 marks)

---

\*4     Write 60 as a product of its prime factors.

.....  
(Total for Question 4 is 2 marks)

---

- 5** 160 people were asked to choose their favourite type of book.  
They each chose from romance or adventure or horror or thriller.  
85 of these people were children.  
The rest were adults.  
19 of the 33 people who chose romance were children.  
34 of the 76 people who chose adventure were adults.  
7 adults chose thriller.  
The number of children who chose thriller was the same as the number of adults who chose horror.  
Work out the total number of people who chose horror.  
You must show how you get your answer.

.....  
**(Total for Question 5 is 4 marks)**

---

6 Here are the heights, in cm, of 16 sunflowers.

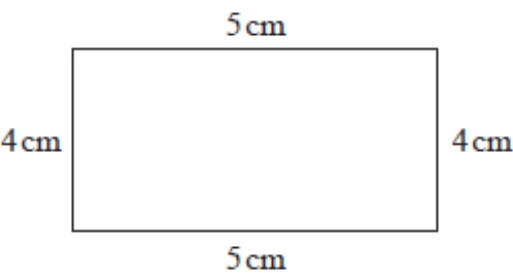
168	173	172	180	162	191	183	160
178	184	197	177	172	186	188	180

Show this information in a stem and leaf diagram.

Key:

(Total for Question 6 is 3 marks)

7 Milo is trying to find the area of this rectangle.



He writes,

“The area is 400 cm<sup>2</sup> because  $5 \times 4 \times 5 \times 4 = 400$ ”

(a) Explain what is wrong with Milo’s method.

.....

.....

.....

(1)

Anya works out the area of a shape.  
Her answer is 86 cm.

(b) Explain why her answer cannot be fully correct.

.....

.....

.....

(1)

(Total for Question 7 is 2 marks)

\_\_\_\_\_



- \*8** There are 48 counters in a bag.  
There are only red counters and blue counters in the bag.

number of red counters : number of blue counters = 1 : 2

Helen has to work out how many red counters are in the bag.  
She says: “There are 24 red counters in the bag because 1 is half of 2 and 24 is half of 48”  
Is Helen correct? You must give a reason for your answer.

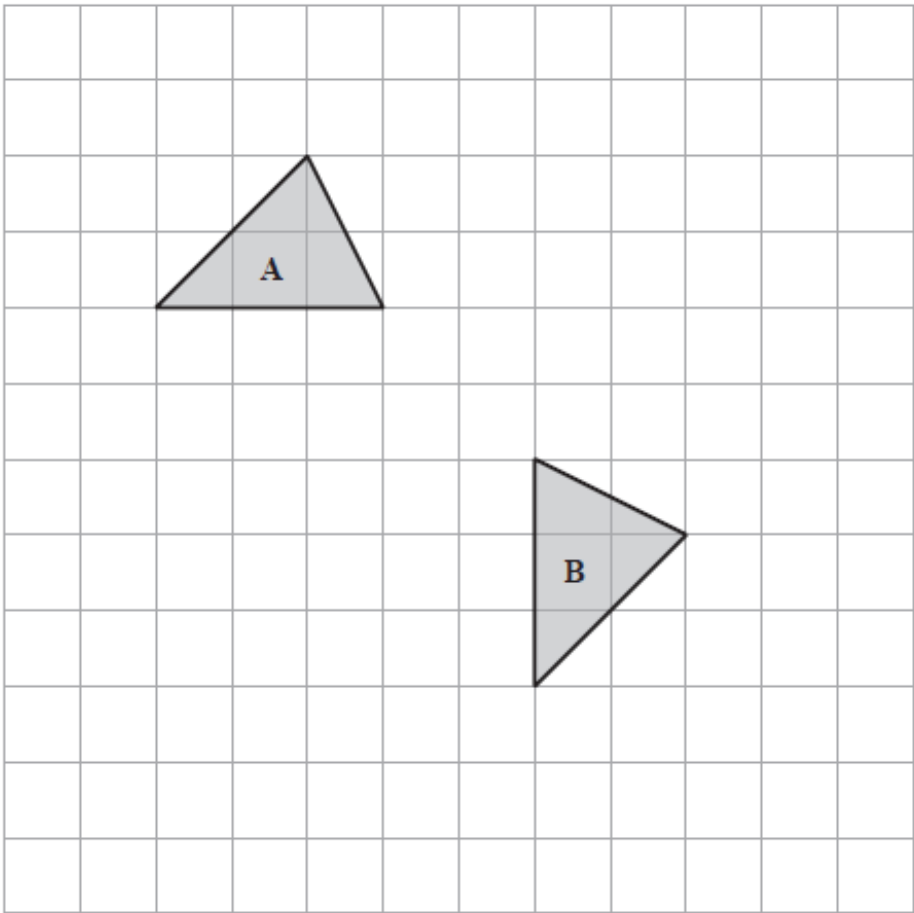
.....

.....

.....

(Total for Question 8 is 1 mark)

- 9** Shape A is reflected in a mirror line to give shape B.



On the grid, draw the mirror line.

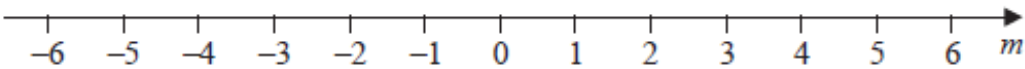
(Total for Question 9 is 1 mark)

- 10** There are 3 cinemas **A**, **B** and **C**.  
The mean number of seats per cinema is 380  
There are 350 seats in cinema **A**.  
There are 250 seats in cinema **B**.  
Work out the number of seats in cinema **C**.

.....  
(Total for Question 10 is 4 marks)

---

- \*11** On the number line below, show the inequality  $-4 \leq m < 1$



(Total for Question 11 is 2 marks)

---

- 12** In the space below, draw a sketch of a triangular prism.

(Total for Question 12 is 1 mark)

---

**TOTAL FOR PAPER IS 29 MARKS**

## **WEEK 4 TASK 5**

# One Marker Starters

Includes Summer 2017 – Summer 2024 Exam Papers



(Unless otherwise stated)

1

Simplify  $k^5 + k^5 + k^5$

6

Write a number in each box to make the calculation correct

$$56.3 + \boxed{\phantom{000000}} = 100$$

$$\frac{2}{7} + \boxed{\phantom{000000}} = 1$$

2

Change 7700 millilitres to litres

7

Write 0.37 as a percentage

3

Write 0.31 as a fraction

8

Write down a multiple of 8 that is between 41 and 60

4

Work out 50% of 240

9

Here is a list of numbers.

5      11      18      22      29      31

Write down the number from the list that is a multiple of 3

5

Work out  $5^2$

10

Work out  $\frac{1}{6}$  of 66



# MARKSCHEMES

## **WEEK 4 TASK 1**

# One Marker Starters

Includes Summer 2017 – Summer 2024 Exam Papers



(Unless otherwise stated)

1

Change 6.5 kg into grams

6500 grams

6

Work out

$$20 \div (3 + 2)$$

4

2

Write down two factors of 35

Any two from

1, 5, 7 or 35

7

Change 53 centimetres to millimetres

530 millimetres

3

Write these numbers in order of size.  
Start with the smallest number

$\frac{1}{2}$       0.55      45%  
45%     $\frac{1}{2}$     0.55

8

Write 23% as a fraction

$\frac{23}{100}$   
or equivalent

4

Write down the value of the 6  
in the number 16 007

6000

9

Solve:  $\frac{y}{3} = 12$

$$y = 36$$

5

Simplify  $4f - 2f + f$

$3f$

10

Write 0.3 as a fraction

$\frac{3}{10}$   
or equivalent

## **WEEK 4 TASK 2**



Answer all questions.

Write your answers in the spaces provided.

You must write down all the stages in your working.

1 For a football match,

297 tickets were sold for £9.50 each.

399 tickets were sold for £19.50 each.

(a) Work out an estimate for the total amount of money paid for these tickets.

You must show all your working. 1 mark for either of these

$$297 \rightarrow 300$$

$$9.50 \rightarrow \pounds 10$$

$$399 \rightarrow 400$$

$$19.50 \rightarrow \pounds 20$$

$$300 \times 10$$

$$400 \times 20$$

$$3000 + 8000 = 11000$$

$$\pounds 11000$$

Final mark

1 mark for any of these

(3)

(b) Is your answer to part (a) an underestimate or an overestimate?

Give a reason for your answer.

1 mark

its an overestimate because all the numbers  
used were rounded up

(1)

(Total for Question 1 is 4 marks)

2 Steve is buying a car.

The car costs £12 000

Steve pays 25% of the cost as a deposit.

He pays the rest of the cost in 20 equal monthly payments.

How much is each monthly payment?

1 mark

$$25\% \text{ of } 12000 = 12000 \div 4 = 3000 \text{ \pounds deposit}$$

$$\text{left to pay} = 12000 - 3000 = 9000$$

1 mark

1 mark

$$9000 \div 20 = \pounds 450$$

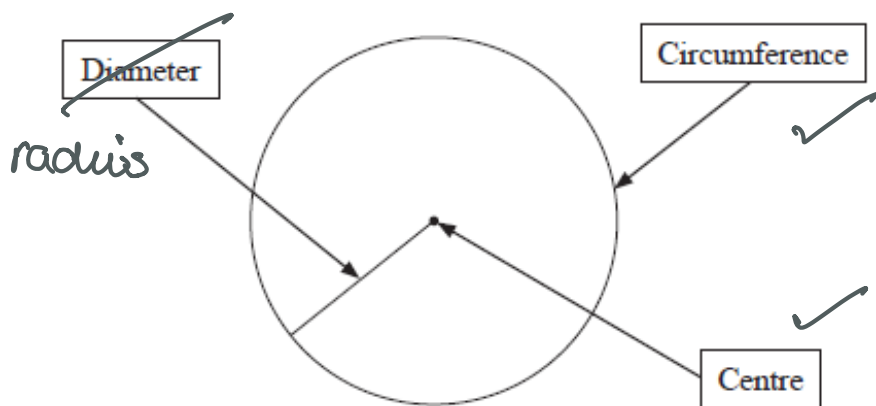
$$\begin{array}{r} 450 \\ 20 \overline{) 9000} \end{array}$$

$$\pounds 450$$

Final mark

(Total for Question 2 is 4 marks)

3 Freddie adds labels to this diagram of a circle.



Explain why one of the labels is wrong.

he has labelled the radius as the diameter

1 mark

(Total for Question 3 is 1 mark)

4 Some people watched a film at the cinema.

number of adults : number of children = 2 : 5

(b) What fraction of these people were adults?



$$\frac{2}{7}$$

1 mark

(1)

On Friday,

500 people watched a film at the cinema.

70% of these people were children.

On Saturday,

720 people watched the film at the cinema.

$\frac{5}{8}$  of these people were children.

Kasim thinks more children watched the film on Friday than on Saturday.

$$8 \times 90 = 720$$

(c) Is Kasim correct? You must show how you get your answer.

500 1 mark

FRI

$$\begin{aligned} 10\% &= 50 \\ 70\% &= 50 \times 7 \end{aligned}$$

= 350 children

SAT.

720 1 mark

$$\begin{aligned} \frac{5}{8} \times 720 &= (720 \div 8) \times 5 \\ &= 450 \text{ children} \end{aligned}$$

No,  $450 > 350$

Final mark

(3)

(Total for Question 4 is 4 marks)

Must be supported by correct figures

- 5  $P = 2g + 4h$   
 (a) Work out the value of  $g$  when  $P = 38$  and  $h = 3$

$$38 = 2g + 4 \times 3 \quad 1 \text{ mark}$$

$$38 - 12 = 2g$$

$$26 = 2g \quad g = 13$$

$$g = \boxed{13} \quad \text{Final mark} \quad (2)$$

$$V = 3r - q$$

- (b) Work out the value of  $V$  when  $r = -3$  and  $q = 2$

$$V = 3 \times -3 - 2 \quad 1 \text{ mark}$$

$$= -9 - 2$$

$$= -11$$

$$V = \boxed{-11} \quad \text{Final mark} \quad (2)$$

(Total for Question 5 is 4 marks)

- 6 Simplify  $19 + 5b + 4c - 7b + c$

$$19 + 5b - 7b + 4c + c$$

$$19 - 2b + 5c \quad 1 \text{ mark for either of these}$$

$$\boxed{19 - 2b + 5c} \quad \text{Final mark} \quad (2)$$

(Total for Question 6 is 2 marks)

- \*7 Work out  $6.3 \times 2.4$

$$63 \times 24$$

$$= 1512$$

$$\text{so } 6.3 \times 2.4$$

$$= 15.12$$

$$\begin{array}{r} 63 \\ \times 24 \\ \hline 252 \\ 1260 \\ \hline 1512 \end{array} \quad 1 \text{ mark}$$

$$1512 \quad 1 \text{ mark for digits 1512}$$

$$\boxed{15.12} \quad \text{Final mark}$$

(Total for Question 7 is 3 marks)

8 Work out  $\frac{6}{7} \times \frac{5}{12}$

Give your answer as a fraction in its simplest form.

$\frac{6}{7} \times \frac{5}{12} = \frac{30}{84}$  1 mark

$\frac{30}{84} = \frac{15}{42} = \frac{5}{14}$

$\frac{5}{14}$  Final mark

(Total for Question 8 is 2 marks)

9 Work out  $\frac{3}{5} \div \frac{1}{6}$

Give your answer as a mixed number.

1 mark  $\frac{3}{5} \times \frac{6}{1} = \frac{18}{5}$  1 mark

$\frac{18}{5} = 3\frac{3}{5}$

$3\frac{3}{5}$  Final mark

(Total for Question 9 is 3 marks)

10 Chloe is making scrunchies.

Chloe has a large number of hair bands.

Each hair band costs 8p.

She buys 100 g of wool for £3

Chloe uses 1 hair band and 5 g of wool to make each scrunchy.

She makes as many scrunchies as she can.

Work out the total cost of each scrunchy that she makes.

Give your answer in pence.

$100g \div 5 = 20$  1 mark  $100g = £3 = 300p$  1 mark  
 $\div 20$   
 $5g = \frac{300}{20} = 15p$

Total cost =  $8p + 15p$  1 mark

$23$  Final mark

(Total for Question 10 is 4 marks)

TOTAL FOR PAPER IS 31 MARKS

## **WEEK 4 TASK 3**

# One Marker Starters

Includes Summer 2017 – Summer 2024 Exam Papers



(Unless otherwise stated)

1

Change 2.7 kg into grams

2700 grams

6

Write the number five million  
in figures

5 000 000

2

Write  $\frac{7}{100}$  as a decimal

0.07

7

Write 0.3 as a percentage

30%

3

Write 4.444 correct to the  
nearest whole number

4

8

Change 7.3 m into mm

7300 mm

4

Write brackets ( ) in this  
statement to make it correct

$(8 \times 2) + 6 = 22$

9

Here is a list of four fractions

$\frac{4}{16}$     $\frac{2}{8}$     $\frac{15}{60}$     $\frac{3}{9}$

One of these fractions is **not** equivalent to  $\frac{1}{4}$

Write down this fraction

$\frac{3}{9}$

5

Simplify  $y + 3y - 2y$

2y

10

Write 7829 to the nearest 1000

8000

## **WEEK 4 TASK 4**

Answer all questions.

Write your answers in the spaces provided.

You must write down all the stages in your working.

- 1 3 kg of flour costs £4.05  
5 kg of flour and 6 kg of sugar cost £11.85  
Work out the cost of 2 kg of flour and 5 kg of sugar.

3 kg flour = £4.05  
1 kg = £1.35  
5 kg = 6.75

1 mark

6 kg sugar = 11.85 - 6.75  
= 5.10  
1 kg = 5.10 ÷ 6  
= 0.85

1 mark

TOTAL. 1.35 × 2 + 5 × 0.85  
= 2.70 + 4.25

1 mark

£ 6.95 Final mark  
(Total for Question 1 is 4 marks)

- 2 Martha and Nabeel share £120  
Martha gets 72% of the money.  
She spends 30% of the money she gets.  
How much money does Martha have left?

0.72 × 120  
= £86.40

1 mark

spends  
0.3 × 86.40  
= 25.92

1 mark

has. 86.40 - 25.92

£ 60.48 Final mark  
(Total for Question 2 is 3 marks)



3

Here are the first five terms of a sequence.

1	2	3	4	5
3	8	13	18	23

Write down the ratio of the second term to the fourth term.  
Give your ratio in its simplest form.

8 : 18

1 mark

4 : 9

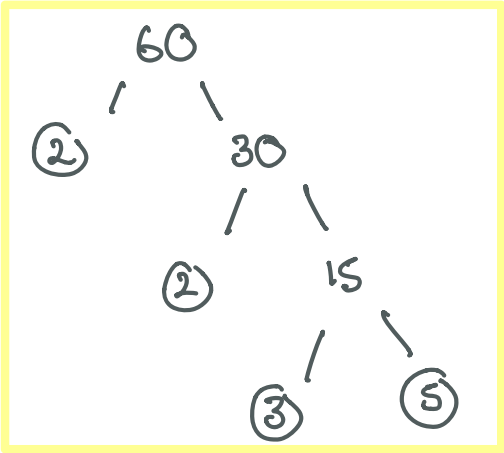
4 : 9

Final mark

(Total for Question 3 is 2 marks)

\*4

Write 60 as a product of its prime factors.



1 mark

2 × 2 × 3 × 5

Final mark

2 × 2 × 3 × 5 or 2<sup>2</sup> × 3 × 5

(Total for Question 4 is 2 marks)

5    160 people were asked to choose their favourite type of book.  
 They each chose from romance or adventure or horror or thriller.

85 of these people were children.  
 The rest were adults.

19 of the 33 people who chose romance were children.  
 34 of the 76 people who chose adventure were adults.  
 7 adults chose thriller.

The number of children who chose thriller was the same as the number of adults who chose horror.

Work out the total number of people who chose horror.  
 You must show how you get your answer.

1 mark for 14, 42 or 75

	Romance	Adv.	Horror	Thriller	Total
Adults	$33-19$ <div style="border: 1px solid yellow; padding: 2px;">14</div>	34	20	7	$160-85$ <div style="border: 1px solid yellow; padding: 2px;">= 75</div>
Children	19	$76-34$ <div style="border: 1px solid yellow; padding: 2px;">42</div>		20	85
Total	33	76		<div style="border: 1px solid yellow; padding: 2px;">27</div>	160

1 mark

1 mark

$$75 - (14 + 34 + 7)$$

$$= 20$$

$$160 - (33 + 76 + 27)$$

= 24

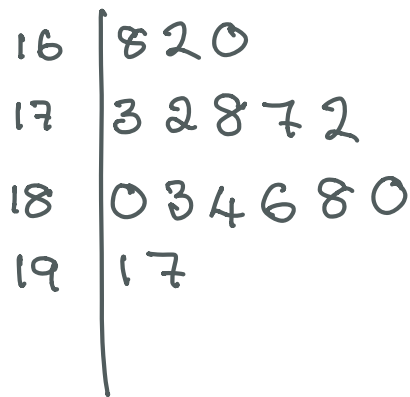
Final mark

(Total for Question 5 is 4 marks)

6 Here are the heights, in cm, of 16 sunflowers.

168    173    172    180    162    191    183    160  
178    184    197    177    172    186    188    180

Show this information in a stem and leaf diagram.



2 marks for fully correct diagram

1 mark for unordered diagram

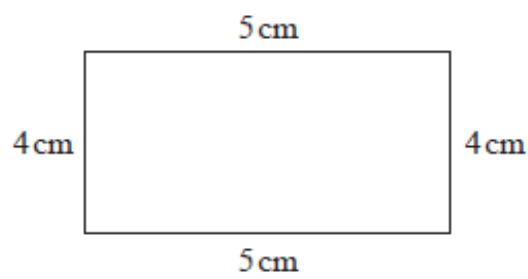
16	0 2 8
17	2 2 3 7 8
18	0 0 3 4 6 8
19	1 7

1 mark for key

Key:  
16 | 7 = 167

(Total for Question 6 is 3 marks)

7 Milo is trying to find the area of this rectangle.



He writes,

“The area is 400 cm<sup>2</sup> because  $5 \times 4 \times 5 \times 4 = 400$ ”

(a) Explain what is wrong with Milo’s method.

They should have done  $5 \times 4 = 20$

1 mark

(1)

Anya works out the area of a shape.  
Her answer is 86 cm.

(b) Explain why her answer cannot be fully correct.

The units should be cm<sup>2</sup> not cm

1 mark

(1)

(Total for Question 7 is 2 marks)

\*8 There are 48 counters in a bag.  
There are only red counters and blue counters in the bag.

number of red counters : number of blue counters = 1 : 2

Helen has to work out how many red counters are in the bag.

She says: “There are 24 red counters in the bag because 1 is half of 2 and 24 is half of 48”

Is Helen correct? You must give a reason for your answer.

No

R

B

1 : 2

=>

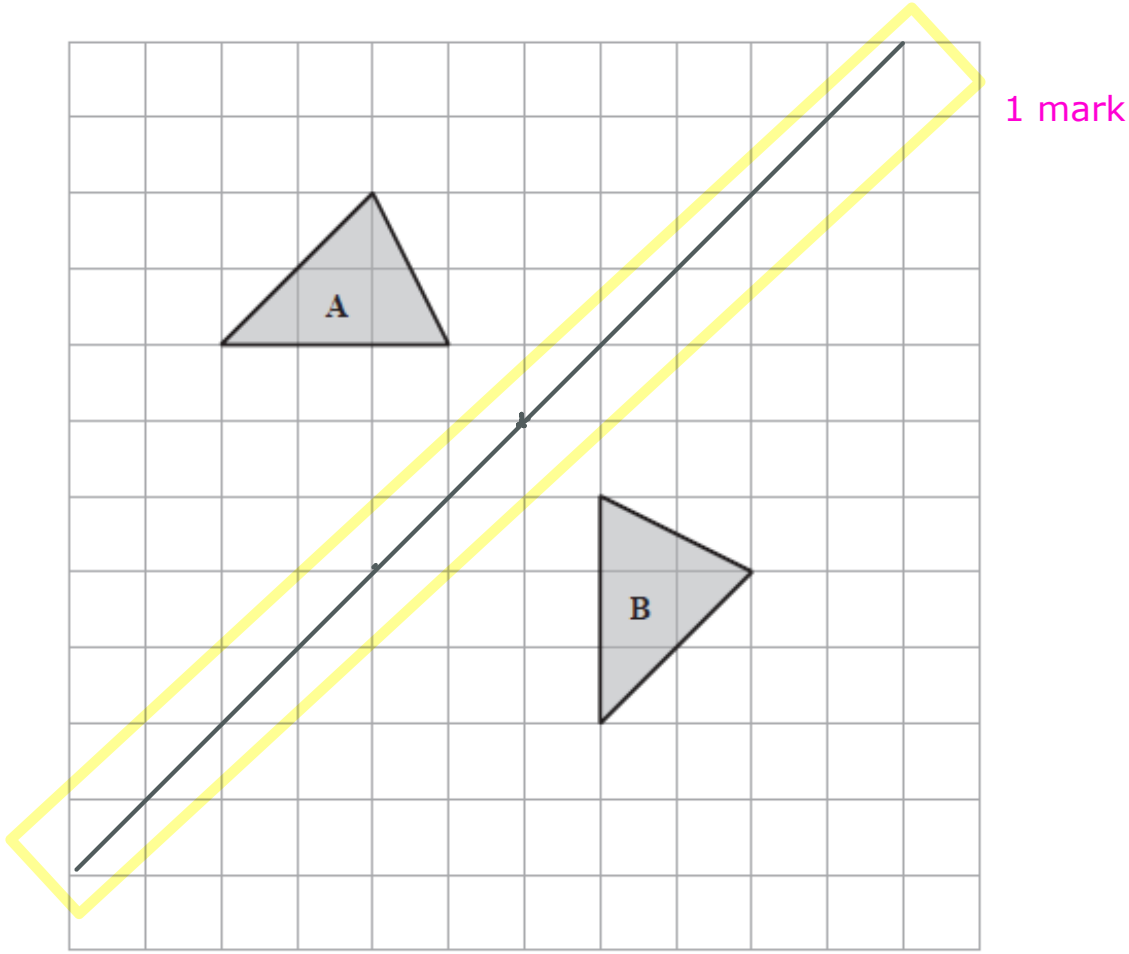
16 : 32

There are 16 red counters

1 mark

(Total for Question 8 is 1 mark)

9 Shape A is reflected in a mirror line to give shape B.



On the grid, draw the mirror line.

(Total for Question 9 is 1 mark)

10 There are 3 cinemas A, B and C.  
 The mean number of seats per cinema is 380  
 There are 350 seats in cinema A.  
 There are 250 seats in cinema B.  
 Work out the number of seats in cinema C.

1 mark

$380 \times 3 = 1140$

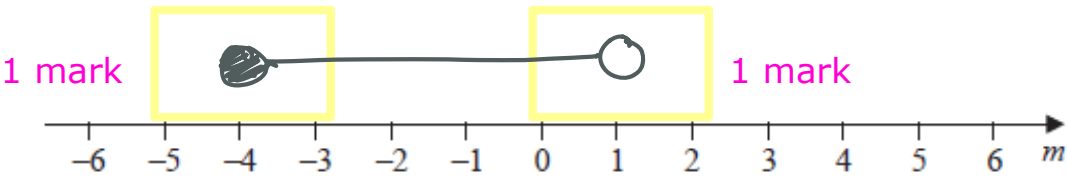
A	B	C	Total
350	250	<div>1 mark</div> <div> <math>1140 - (350 + 250)</math>  <math>= 540</math> </div>	1140

Final mark

540

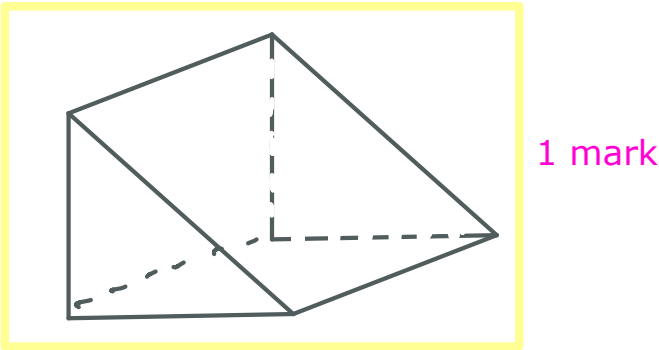
(Total for Question 10 is 4 marks)

\*11 On the number line below, show the inequality  $-4 \leq m < 1$



(Total for Question 11 is 2 marks)

12 In the space below, draw a sketch of a triangular prism.



(Total for Question 12 is 1 mark)

TOTAL FOR PAPER IS 29 MARKS

## **WEEK 4 TASK 5**

# One Marker Starters

Includes Summer 2017 – Summer 2024 Exam Papers



(Unless otherwise stated)

1

Simplify  $k^5 + k^5 + k^5$

$3k^5$

6

Write a number in each box to make the calculation correct

$$56.3 + \boxed{43.7} = 100$$

$$\frac{2}{7} + \boxed{\frac{5}{7}} = 1$$

2

Change 7700 millilitres to litres

7.7 litres

7

Write 0.37 as a percentage

37%

3

Write 0.31 as a fraction

$\frac{31}{100}$

or equivalent

8

Write down a multiple of 8 that is between 41 and 60

48 or 56

4

Work out 50% of 240

120

9

Here is a list of numbers.

5    11    18    22    29    31

Write down the number from the list that is a multiple of 3

18

5

Work out  $5^2$

25

10

Work out  $\frac{1}{6}$  of 66

11