




Countdown to your final Maths exam ...

Part 7 (2019)

	Marks	Actual	  
Q1. Inequalities (Clip 5)	4		
Q2. Frequency polygons (Clips 29)	2		
Q3. Inequalities (Clip 5, 24 and 25)	7		
Q4. Averages from grouped data (Clip 28)	4		
Q5. Inequalities (Clip 5)	4		
Q6. Frequency polygons (Clip 29)	2		
Q7. Inequalities (Clip 5)	3		
Q8. Frequency polygons (Clips 29)	3		
Q9. Inequalities (Clip 5)	4		
Q10. Averages from grouped data (Clip 28)	5		
Q11. Inequalities (Clip 5)	4		

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Q1. $-5 < y \leq 0$ y is an integer.

(a) Write down all the possible values of y .

(2)

(b) Solve $6(x - 2) > 15$



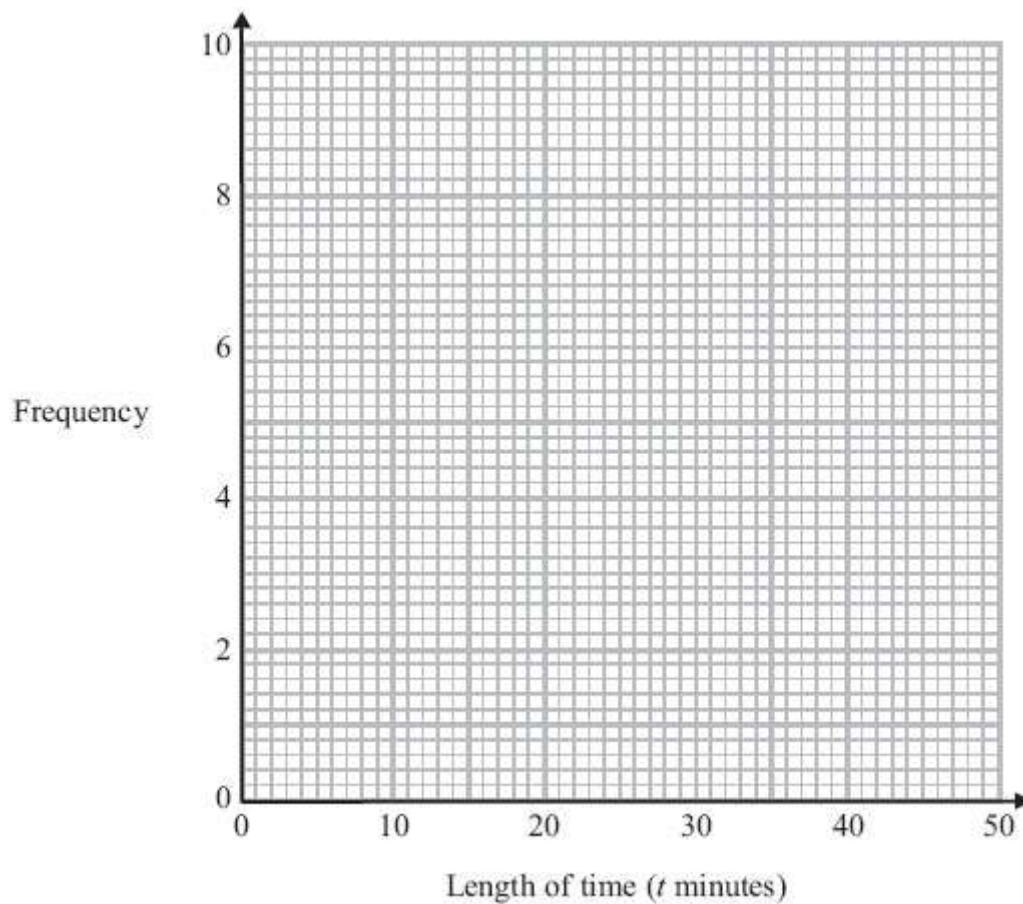
(2)

Q2. Helen went on 35 flights in a hot air balloon last year.

The table gives some information about the length of time, t minutes, of each flight.

Height (t minutes)	Frequency
$0 < h \leq 10$	6
$10 < h \leq 20$	9
$20 < h \leq 30$	8
$30 < h \leq 40$	7
$40 < h \leq 50$	5

On the grid below, draw a frequency polygon for this information.



(2)

Q3. (a) Solve $4(y + 3) = 19$

(2)

(b) Solve the inequality $2p - 8 > 7$



(2)

(c) Solve $x^2 + 2x - 15 = 0$

(3)

Q4. Bob asked each of 40 friends how many minutes they took to get to work.

The table shows some information about his results.

Time taken (m minutes)	Frequency
$0 < m \leq 10$	3
$10 < m \leq 20$	8
$20 < m \leq 30$	11
$30 < m \leq 40$	9
$40 < m \leq 50$	9



Work out an estimate for the mean time taken.

..... minutes (4)

Q5. T is an integer such that $7 < T < 15$

(a) Write down the greatest number T can be.

(1)

f and g are both integers.

$$f + g = 500$$

f is 160 greater than g

(b) Calculate the value of f and the value of g .



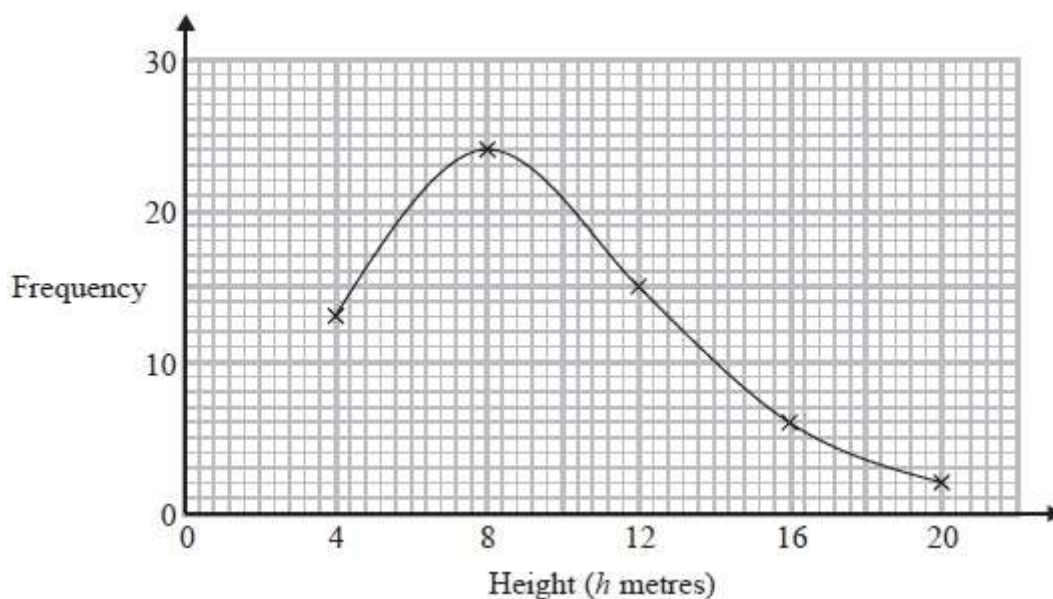
$f =$

$g =$ (3)

Q6. The table shows information about the heights of 60 trees.

Height (h metres)	Frequency
$0 < h \leq 4$	13
$4 < h \leq 8$	24
$8 < h \leq 12$	15
$12 < h \leq 16$	6
$16 < h \leq 20$	2

Jacob drew this frequency polygon for the information in the table.
The frequency polygon is not correct.



Write down two things that are wrong with the frequency polygon.

1

2

(2)

Q7. $3x + 5 > 16$ x is an integer.

Find the smallest value of x .

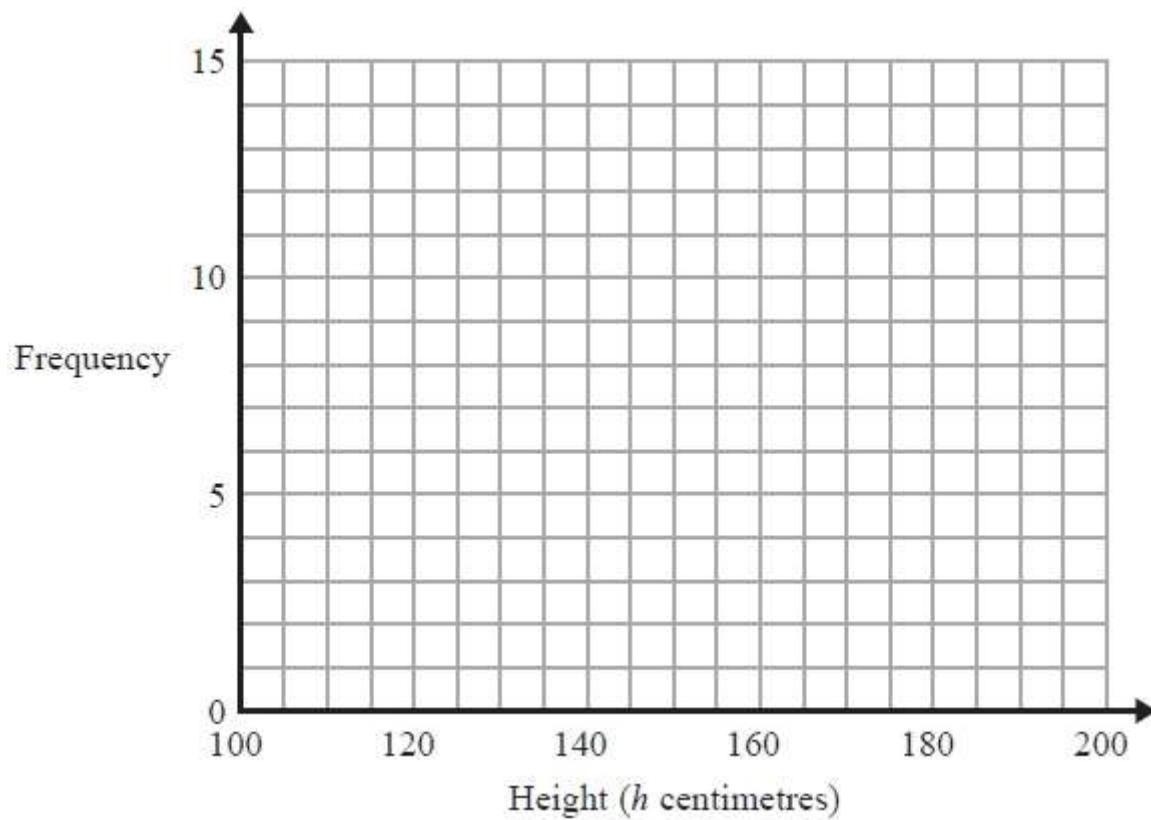


(3)

Q8. The table shows information about the heights, in centimetres, of 30 sunflower plants.

Height (h centimetres)	Frequency
$100 < h \leq 120$	2
$120 < h \leq 140$	6
$140 < h \leq 160$	7
$160 < h \leq 180$	12
$180 < h \leq 200$	3

(a) On the grid, draw a frequency polygon for this information.



(b) Write down the modal class interval.

(2)

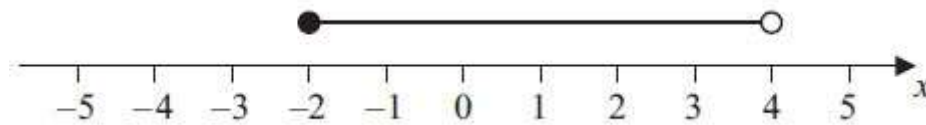
(1)

Q9. $-4 < n \leq 7$ n is an integer.

(a) Write down all the possible values of n .

(2)

(b) Write down the inequalities represented on the number line.



(2)

Q10. Jenny works in a shop that sells belts. The table shows information about the waist sizes of 50 customers who bought belts from the shop in May.

Belt size	Waist (w inches)	Frequency
Small	$28 < w \leq 32$	24
Medium	$32 < w \leq 36$	12
Large	$36 < w \leq 40$	8
Extra Large	$40 < w \leq 44$	6

(a) Calculate an estimate for the mean waist size.

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Belts are made in sizes Small, Medium, Large and Extra Large. Jenny needs to order more belts in June. The modal size of belts sold is Small.

Jenny is going to order $\frac{3}{4}$ of the belts in size Small.

The manager of the shop tells Jenny she should not order so many Small belts.

(b) Who is correct, Jenny or the manager? You must give a reason for your answer.

(2)

Q11. $-2 \leq n < 3$ n is an integer.

(a) Write down all the possible values of n .

(2)

(b) Solve $4 - x < 2x - 5$

(2)