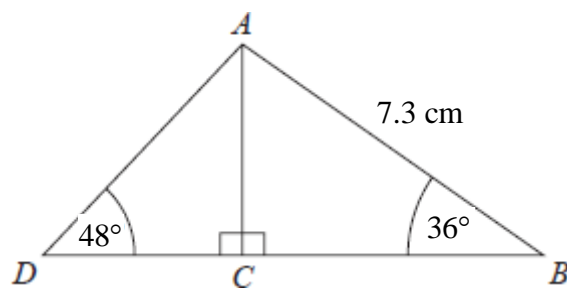


Pearson  
Edexcel

Name: \_\_\_\_\_

BennettMaths Edexcel 3H – Part 2

- 10**  $ABD$  is a triangle.  
 $C$  is a point on  $BD$ .



Work out the length of  $DC$ .  
Give your answer correct to 1 decimal place.

..... cm

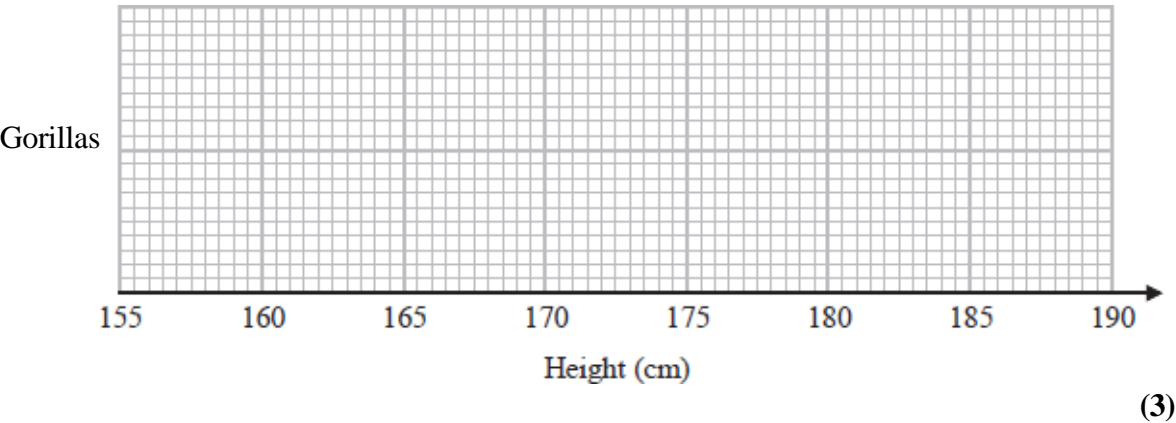
(Total for Question 10 is 3 marks)

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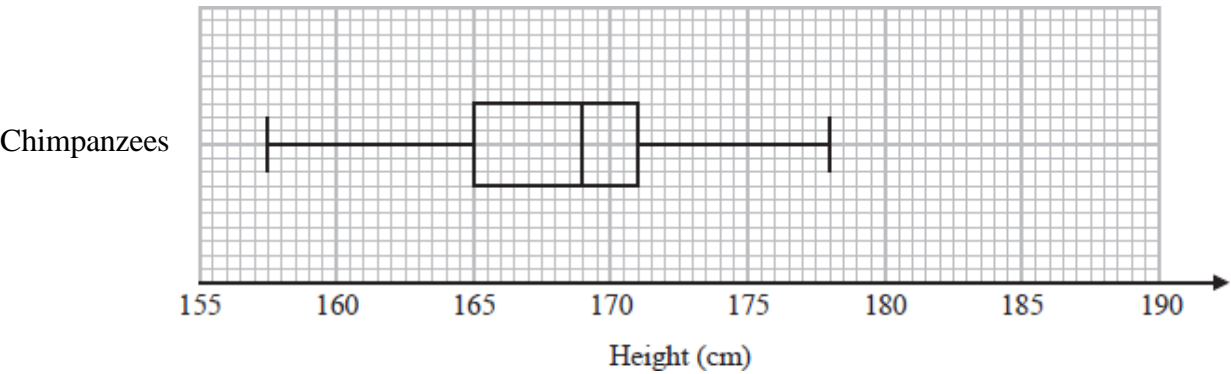
**11** The table shows some information about the heights of a group of gorillas.

|                 |        |
|-----------------|--------|
| least height    | 159 cm |
| greatest height | 188 cm |
| median          | 179 cm |
| lower quartile  | 172 cm |
| upper quartile  | 182 cm |

(a) On the grid, draw a box plot for the information in the table.



The box plot below shows the distribution of the heights of a group of chimpanzees.



(b) Compare the distribution of the heights of the gorillas with the distribution of the heights of the chimpanzees.

.....

.....

.....

.....

(2)

(Total for Question 11 is 5 marks)

---

- 12** Show that  $(x + 2)(x - 3)(x + 4)$  can be written in the form  $ax^3 + bx^2 + cx + d$  where  $a, b, c$  and  $d$  are integers.

**(Total for Question 12 is 3 marks)**

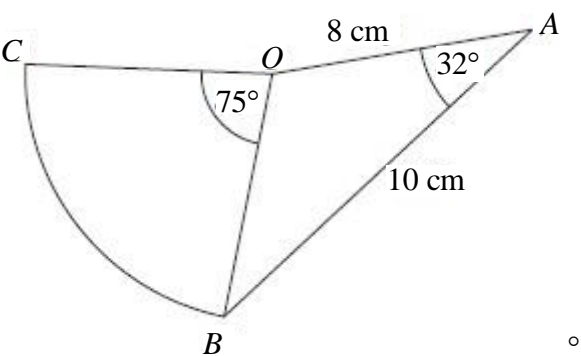
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- 13** Show algebraically that the sum of any 3 consecutive even numbers is always a multiple of 6.

**(Total for Question 13 is 3 marks)**

---

- 14  $OAB$  is a triangle.  
 $OBC$  is a sector of a circle, centre  $O$ .



Calculate the area of  $OBC$ .  
 Give your answer correct to 3 significant figures.

..... cm<sup>2</sup>

(Total for Question 14 is 4 marks)

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**15** (a) Factorise  $p^2 - q^2$

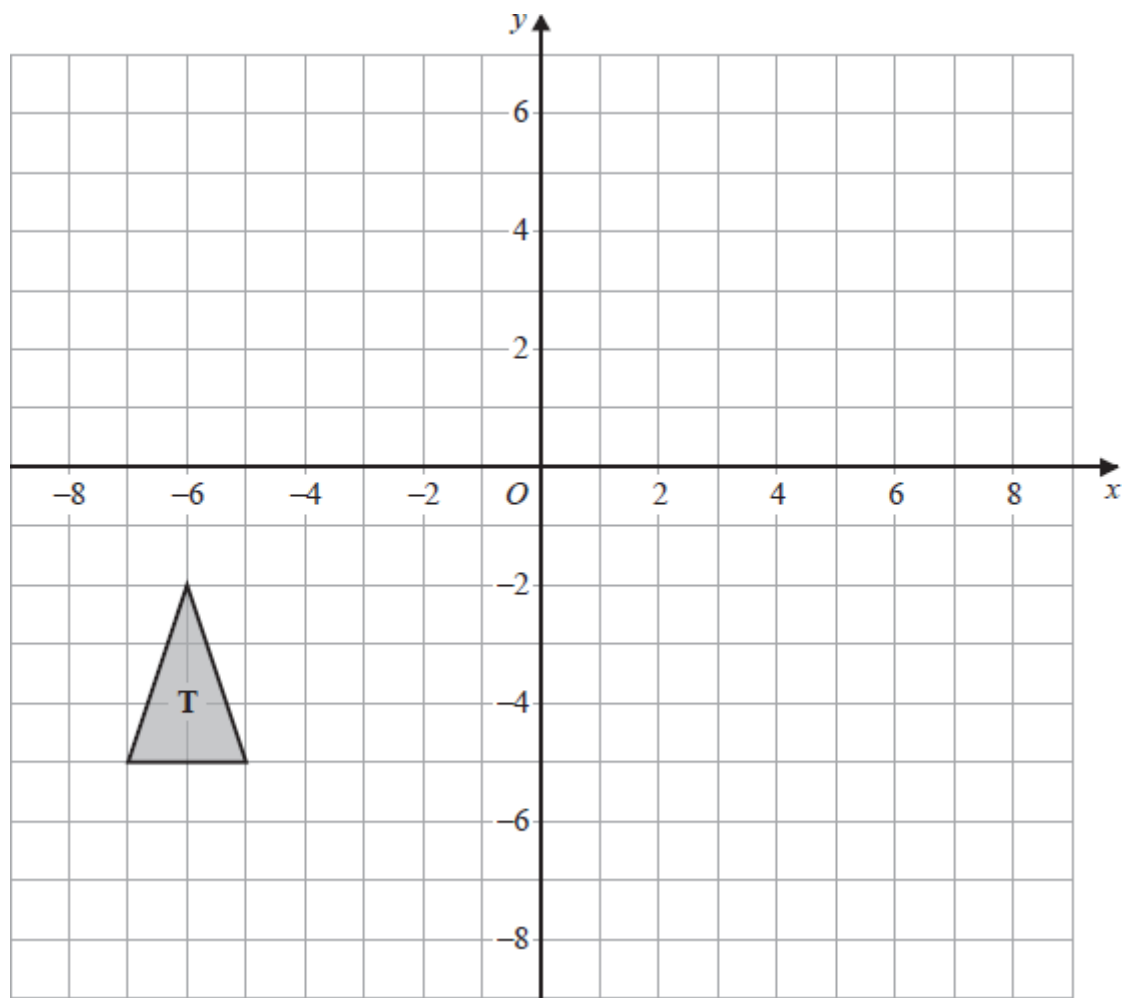
.....  
**(1)**

(b) Show that  $3^{60} - 1$  is the product of two consecutive even numbers.

**(2)**

**(Total for Question 15 is 3 marks)**

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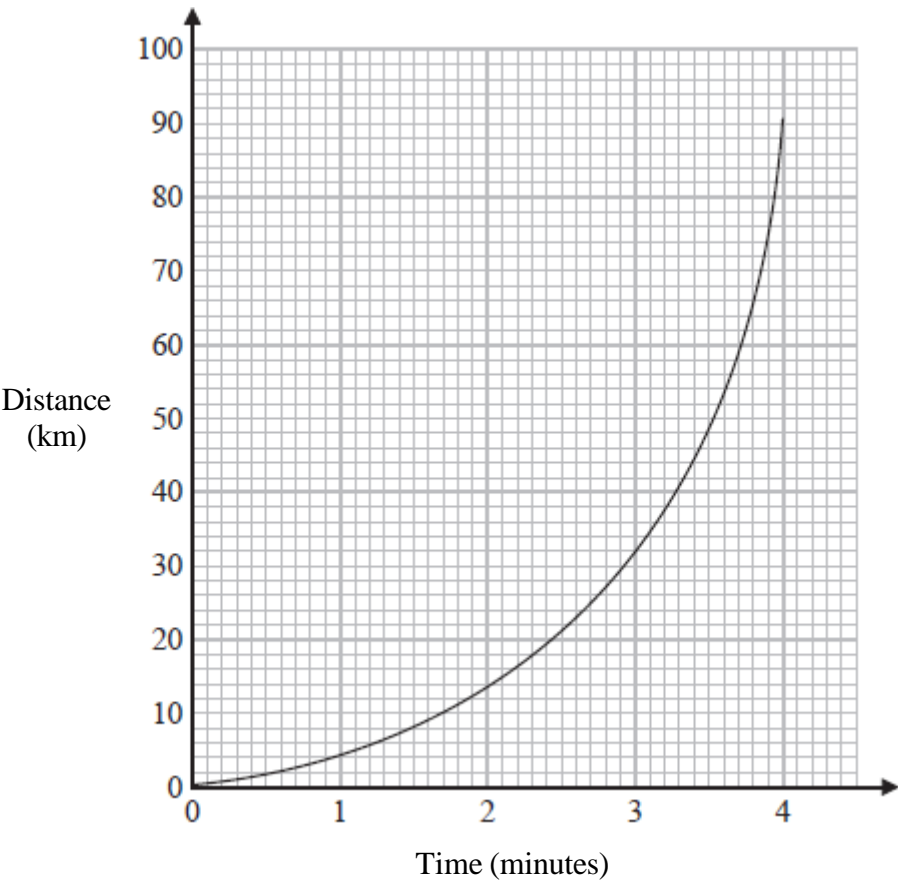


On the grid, enlarge triangle **T** by scale factor  $-2$  with centre of enlargement  $(-2, -4)$

(Total for Question 16 is 2 marks)

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17 Here is a distance-time graph.



- (a) Find an estimate of the gradient of the graph at time 3 minutes.  
You must show how you get your answer.

.....  
(3)

- (b) What does the gradient of the graph represent?

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

(Total for Question 17 is 4 marks)

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