

## General Mathematics - Homework 6

### Non-calculator section:

1. Find the value of

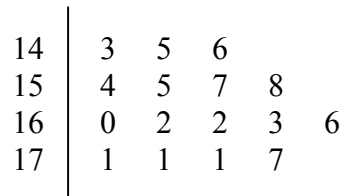
(a)  $0.865 \div 50$       (b) 65% of £22      (c)  $5 \times 1\frac{3}{4}$       (d)  $\frac{5}{7} - \frac{2}{3}$

2. (a) Simplify  $2(x - 4y) + 3(x - y)$

(b) Solve  $5(p - 2) > 20$

(c) Factorise fully  $6mn - 9n$

3. The stem and leaf diagram below shows the heights, in hands, of 16 horses.



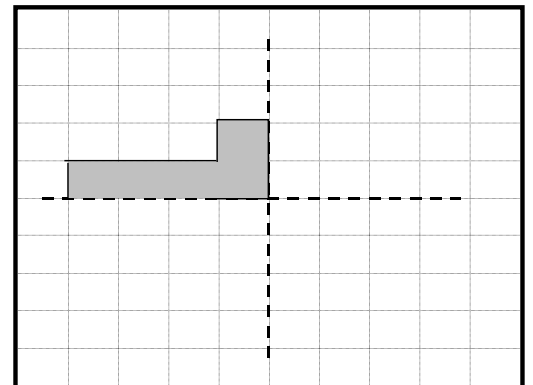
14 | 3 represents 14.3

(a) Find the range of the heights

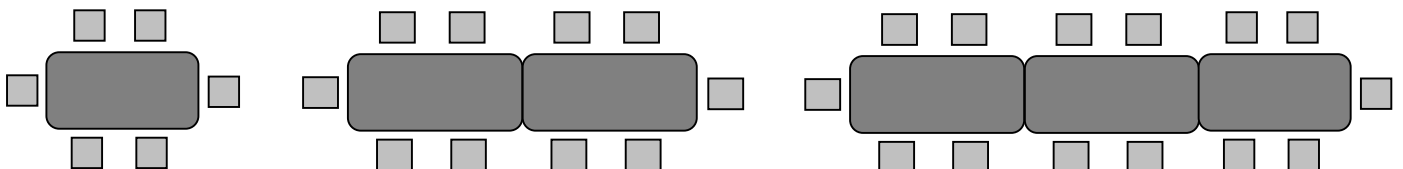
(b) Find the median height

(c) What is the modal height.

4. Copy and complete the diagram opposite so that the dotted lines are both lines of symmetry.



5. A restaurant organises tables as shown below.



(a) Copy and complete the table below.

No. of Tables (T)	1	2	3	4	5	16
No. of Chairs (C)	6	10				

(b) Write down a formula for finding the number of chair (C) if you know number of tables (T).

(c) How many tables would be needed if 82 chairs were used?

**Calculator section:**

6. The table below shows the shoe sizes of 30 pupils.

Shoe size	No. of pupils	Shoe size x no. of pupils
4	8	
5	6	
6	5	
7	4	
8	4	
9	3	

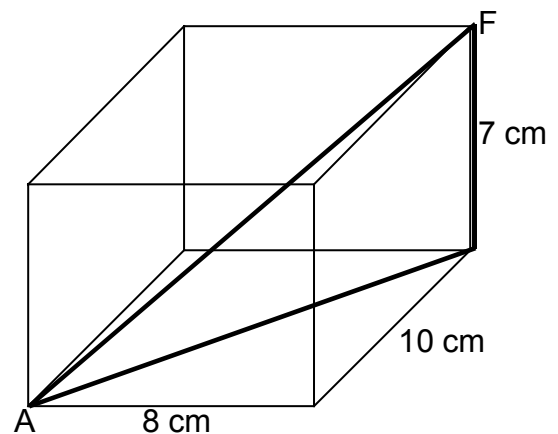
Calculate the mean shoe size.

7. A bus leaves Glasgow at 1155 and travels to York, 180 miles away. If the average speed of the bus is 80 miles per hour, when will the bus arrive in York?



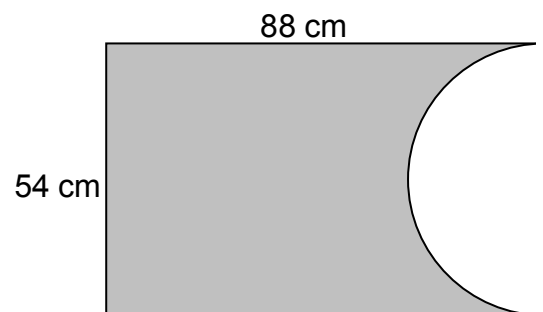
8. The diagram opposite shows a cuboid.

Given the information in the diagram,  
Calculate the length of AF.



9. The shape shown opposite is made from a rectangle with a semi-circle removed.

Calculate the area of this shape.



10. The diagram shows the end view of a symmetrical water trough.

Calculate the distance d.

