

Calculator Power Hour 1

(a) Express 54 as a product of its prime factors.
 (b) Find the Lowest Common Multiple (LCM) of 45 and 54

Tania went to Italy. She changed £325 into euros (€). The exchange rate was £1 = €1.68
 (a) Change £325 into euros (€).
 (b) When she came home she changed €117 into pounds. The new exchange rate was £1 = €1.50, change €117 into pounds.
 Bindia is using trial and improvement to find a solution to the equation $x^2 - 3x = 34$. The table shows her first two trials. Continue the table to find a solution to the equation. Give your answer correct to 1 decimal place.

x	$x^2 - 3x$	Comment
3	18	Too small
4	52	Too large

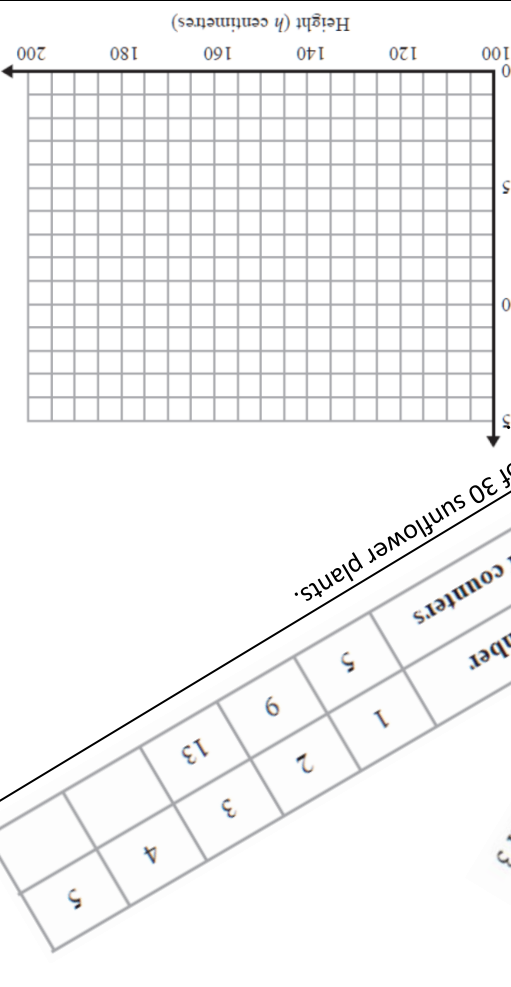
Wentbridge College carried out a survey of the number of students in each Year 13 class during the first teaching period of a day. The results were

15 16 18 22 21 14 11 16
 14 23 13 20 19 14 18 9

Draw a stem and leaf diagram to show these results.
 Here is the number of goals a hockey team scored in each of 10 matches. 5, 7, 12, 3, 2, 1, 6, 11, 7, 7
 Find (i) the median (ii) the range (iii) the mean
 Carrots cost £1 for a 1.2 kg bag at Tesco. The same type of carrots cost 77 pence for a 700 g bag at ASDA.
 Where are the Carrots better value. You must show your working.

Taili is going to make some concrete mix.
 He needs to mix cement, sand and gravel in the ratio 1 : 3 : 5 by weight.
 Taili wants to make 180 kg of concrete mix. Does Taili have enough cement, sand and gravel to make the concrete mix?
 Taili has
 15 kg of cement
 85 kg of sand
 100 kg of gravel

The table shows information about the heights, in centimetres, of 30 sunflower plants.
 (a) Draw pattern number 1
 (b) On the grid, draw a modal class interval.
 (c) Find an expression, in terms of n , for the number of counters in pattern number 4
 (b) Complete the table.
 (a) Write down the modal class interval.



The diagram shows a garden in the shape of a rectangle. All measurements are in metres. The perimeter of the garden is 32 metres.
 (a) Simplify $3y + 2x - 4 + 5x + 7$
 (b) Expand and simplify $(x - 6)(3x + 7)$
 Work out the value of x
 Work out the length of BC.
 Give your answer correct to 3 significant figures.