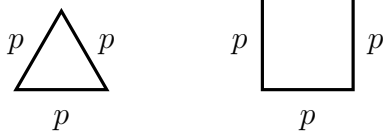
1. {Question (1) and (2) are similar, each question is based on a situation involving calculating the perimeter, weight or area. Question 1 has more of a lead in.}

(a) Here are some shapes made from scaffolding poles.



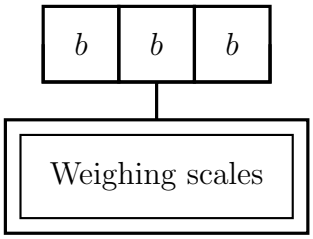
p is the length of each scaffolding pole

$p = 5$ metre

(b) This is a diagram of some boxes being weighed

All the boxes weigh the same amount.

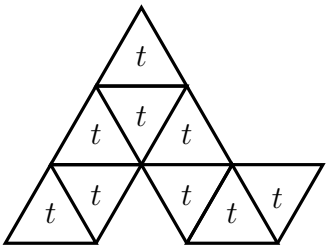
The maths teacher says that $b = 50$ grams



(c) ... an octagon made from tiles.

... t is the area of each tile

... $t = 8$ cm^2



Question 1 (a) Complete this table

shape	perimeter (in terms of p)	perimeter (metre)
triangle	$3p$	15
pentagon	$5p$	

(b) weight of boxes = $4b$

Christopher says the boxes must weigh 350 grams altogether.

Dion says the boxes must weigh 150 grams altogether.

Write down who is correct Christopher or Dion.

You must give a reason for your answer.

(c) ... the area of the octagon, in terms of t, is $9t$

{etc. similar to (a) or (b) }

2. {Uses diagrams from question (1)}

Write down (a) the perimeter of the pentagon

(b) the weight of the boxes

(c) the area of the tiles

(i) in terms of p ... OR b ... OR t

(ii) in metres .. OR grams ... OR cm^2

3. (a) $u = 4t$

   $t = 9$

   Find the value of u

   (b) $A = 3w$

   Work out the value of A when $w = 5$

   (c) $x = 6$

   Work out the value of $3x$

4. (a) $p = 3$

   $q = 8$

   Work out the value of $7p + 2q$

   (b) $y = 7n + 3d$

   $n = 2$

   $d = 5$

   Work out the value of y

   (c) $x = 30$

   $y = 9$

   $P = 2x + 3y$

   Find the value of P

5. {No calculator similar to strand 4 but with ONE negative (never negative × negative)}

   (a) $n = 4$

   $d = -5$

   Work out the value of $7n + 3d$

   (b) $x = 5$

   $y = 3$

   $P = 8x - 4y$

   Find the value of P

   (c) $p = -5$

   $q = 3$

   $W = 7p + 2q$

   Find the value of W