20th May

Corbettmaths

$125^{2/3}$

$\sqrt[3]{125} = 5$

$5^2 = 25$

25

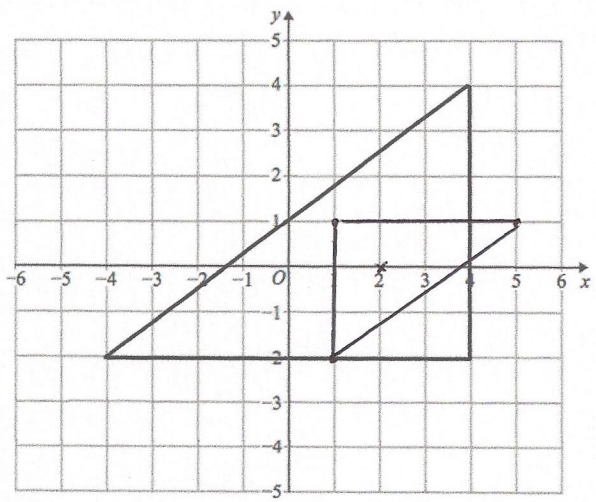
A bag contains red, white, green and pink sweets.
The ratio of red sweets to pink sweets is 3:7.
The ratio of white to green sweets is 2:11.
The ratio of green to red sweets is 1:3.

R	G	P	W
33	11	77	2

Work out the smallest possible number of sweets in the bag.

R	W	G	P
3			7
	2	11	
3		1	

123



Enlarge the triangle by scale factor $-\frac{1}{2}$, using centre of enlargement (2, 0)

Make w the subject

$$g = \frac{w}{w - 5}$$

$g(w-5) = w$

$gw - 5g = w$

$gw - w = 5g$

$w(g-1) = 5g$

$$w = \frac{5g}{g-1}$$