13: Variation:

Y is proportion to x	Y is inversely proportional to X
$\mathbf{y = kx}$	$\mathbf{y = \frac{k}{x}}$

e.g.

y is inversely proportional to x^3.
$y = 5$ when $x = 2$.

Find y when $x = 4$.

Step 1: write down relationship $\mathbf{y = \frac{k}{x^3}}$
Step 2: find k

Put in y =5 and x = 2, to find k = 40

Step 3: substitute x to find answer

$y = \frac{40}{4^3} = 0.625$

*same method for both proportional and inversely proportional