## Year 11 Mathematics Learning Journey: Unit 6 - Ratio and Proportion

| Step 12: Inverse | Step 11: Inverse proportion |
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| pr | It takes 3 machines 2 days to produce a batch of products. Work out how long it would take 1 machine to produce the same batch of products. |
| y is inversely proportional to the cube of $x$. When $y=$ $250, x=0.2$. Find the value of $y$ when $x=0.5$ |  |


| Step 10: Pressure |
| :---: |
| and density |
| A liquid has density |
| of 1.3 grams per ml. |
| Find the mass of |
| 250 ml of the liquid. |

Step 9: Direct
proportion equations
g is directly proportional to the square root of $h$. When $\mathrm{g}=18$, $\mathrm{h}=16$.
Find the possible values of h when $\mathrm{g}=2$. Step 8: Direct Proportion

A machine fills 1000 bottles in 5 hours. Work out how many hours it would take the machine to fill 1200 bottles.

Step 4: Ratio and Algebra
$x: y$ is equal to $5: 3$
Work out $x$ and $y$ if


Step 3: Combining Ratios
The ratio of the number of cats to dogs in a pet shop is 2:5. The ratio of the number of dogs to rabbits in the shop is $3: 10$. Find the ratios of Cats:Dogs:Rabbits

Step 2: Ratios of the form 1:n and $n: 1$
Write the ratio $£ 5: 80$ p in the form $\mathrm{n}: 1$

## Step 1: Currency

Conversion
Pounds to Canadian dollars is $£ 1=\$ 1.70$
How many Canadian dollars can you get for $£ 200$ ?

