Year 10 Mathematics Learning Journey: Unit 9 - Ratios and Fractions


| Step $13(\mathrm{H})$ : Ratio in |
| :---: |
| volume problems |$|$| How can you find the ratio |
| :---: |
| of the volumes of two |
| shapes if you only know |
| their surface areas? |


| Step $12(\mathrm{H})$ : Ratio in area |
| :--- |
| problems |
| If we know the ratio of the |
| areas of two shapes, how |
| can we find the ratio of the |
| lengths of their sides? |

Step 11: Link ratios of algebra

$$
x: y \text { is equal to } 5: 3
$$

Work out $x$ and $y$ if $x-y=$ their surface areas?

| Step 7 (R): Link ratios and scales | Step 8: Ratios of the | Step 9: Solve 'best buy' problems |
| :---: | :---: | :---: |
| On a street map of a town, 2 cm represents 140 metres. Express the scale of the map as a ratio in its simplest form. | form 1:n and n :1 <br> Write the ratio $£ 5: 80$ p in the form $\mathrm{n}: 1$ | Which is better value: 4 litres of juice for $£ 1.80$ of 3 litres of juice for $£ 1.50$ ? |

Step 10: Combine a set of 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

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

