University of
South Australia

## Ratios - Worksheet Answers

## Answer 1

Reduce the following ratios:

| No. | Ratios | Answer |
| :--- | :--- | :--- |
| $\mathbf{1}$ | $35: 25$ | $7: 5$ |
| $\mathbf{2}$ | $105: 25$ | $21: 5$ |
| $\mathbf{3}$ | $12: 6$ | $2: 1$ |
| $\mathbf{4}$ | $18: 54$ | $1: 3$ |
| $\mathbf{5}$ | $27: 81$ | $1: 3$ |

## Answer 2

Change the ratios into fraction format:

| No. | Ratios | Answer |
| :--- | :--- | :--- |
| $\mathbf{1}$ | $35: 25$ | $7 / 5$ |
| $\mathbf{2}$ | $105: 25$ | $21 / 5$ |
| $\mathbf{3}$ | $3: 18$ | $1 / 6$ |
| $\mathbf{4}$ | $12: 96$ | $1 / 8$ |
| $\mathbf{5}$ | $27: 81$ | $1 / 3$ |

## Answer 3

Kylie's desired green to red sticker ratio $=5: 15$ or 1:3 (reduced)
First pack, green stickers: red stickers $=20: 45$
If it's reduced, green: red $=4: 9$
Second pack, green stickers: red stickers $=9: 27$
If it's reduced, green: red = 1:3, which is equivalent to the desired ratio.
So, Kylie should buy the second pack.

## Answer 4

Number of friends living in Melbourne $=3$
Number of friends living in Perth $=2$
So, the ratio of friends from Melbourne to friends from Perth = 3:2.

## Answer 5

Desired ratio: glucose water; regular water $=2: 3$
Now, in the mixture, $2: 3=\mathrm{G}: 450$ (considering ' G ' as the amount of glucose water in the solution)
$\frac{2}{3}=\frac{G}{450}$
$\frac{2}{3} \times 450=\frac{G}{450} \times 450$
$G=2 \times 150$
$G=300$
So, the mixture should have $\mathbf{3 0 0 m l s}$ of glucose water.

## Answer 6

Desired ratio: milk; sugar = 1:4
Now, in the mixture, 1:4=3: S (considering ' S ' as the amount of sugar that needs to go in total)
$\frac{1}{4}=\frac{3}{S}$
$\frac{1}{4} \times S=3$
$\frac{S}{4} \times 4=3 \times 4$
$S=12$
So, the rice pudding should have 12 tablespoons of sugar.
Alice has already put in 5 tablespoons. So, she needs to add 7 tablespoons of sugar.

