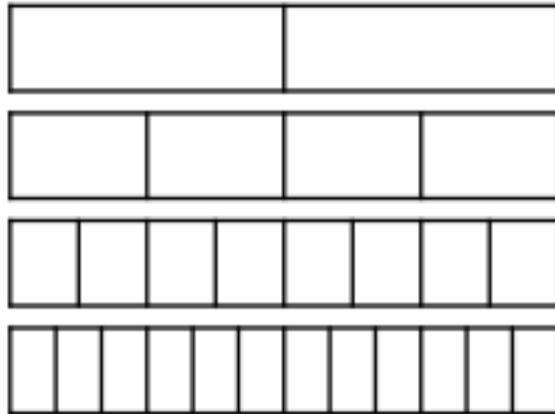# Additional Maths Challenges

Copy the number sentences in your book.

1a. Use the fraction wall to complete these simplified fractions.
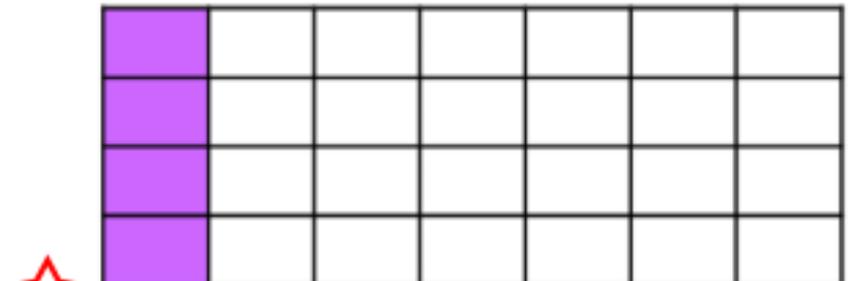
A. $\dfrac{2}{\square} = \dfrac{\square}{4}$ B. $\dfrac{6}{\square} = \dfrac{\square}{2}$

2b. In a vase of 28 flowers, 4 are pink.
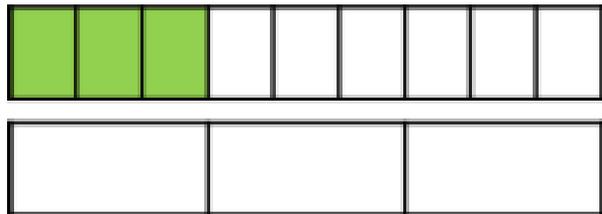
Represent this as a simplified fraction.

Use the grid below to help you work out the fraction in its simplest form.

3a. Tara says,

$\frac{3}{9}$ can be simplified to $\frac{3}{3}$ because 3 goes into 9 three times.

Is she correct? Prove it.

4b. Use the highest common factors below to help complete these simplified fractions.

| 12 | 4 | 6 | 3 |

A. $\frac{28}{\square} = \frac{\square}{9}$

B. $\frac{\square}{36} = \frac{5}{\square}$

C. $\frac{\square}{48} = \frac{3}{\square}$

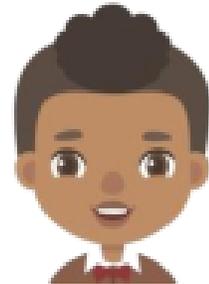D. $\frac{18}{\square} = \frac{\square}{5}$

5a. In a class of 24 children, 16 are girls.

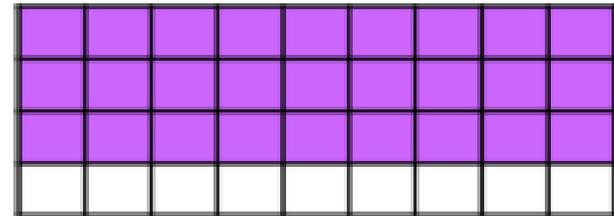Represent this as a simplified fraction.

What fraction of the class are boys? Give the answer in its simplest form.

Use the grid below to help you work out the fraction in its simplest form.

6b. Jerome says,

This fraction can be simplified to $\frac{9}{12}$ because 3 is the highest common factor.

Is he correct? Prove it.

Self Assessment time☺

1a. A: $\dfrac{2}{\boxed{8}} = \dfrac{\boxed{1}}{4}$; B: $\dfrac{6}{\boxed{12}} = \dfrac{\boxed{1}}{2}$ 2b. $\dfrac{1}{7}$

3a. Tara is incorrect, $\dfrac{3}{9}$ simplified is $\dfrac{1}{3}$

4b. A: $\dfrac{28}{\boxed{36}} = \dfrac{\boxed{7}}{9}$; B: $\dfrac{\boxed{15}}{36} = \dfrac{5}{\boxed{12}}$

C: $\dfrac{\boxed{36}}{48} = \dfrac{3}{\boxed{4}}$; D: $\dfrac{18}{\boxed{30}} = \dfrac{\boxed{3}}{5}$

5a. $\dfrac{2}{3}$ are girls and $\dfrac{1}{3}$ are boys.

6b. Jerome is incorrect, $\dfrac{27}{36}$ simplified is $\dfrac{3}{4}$