Name: .... Class: ....

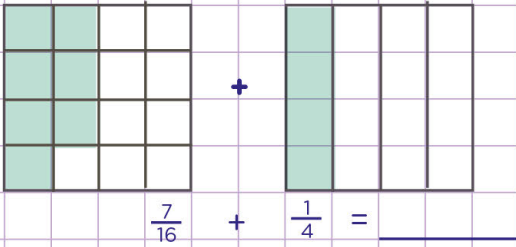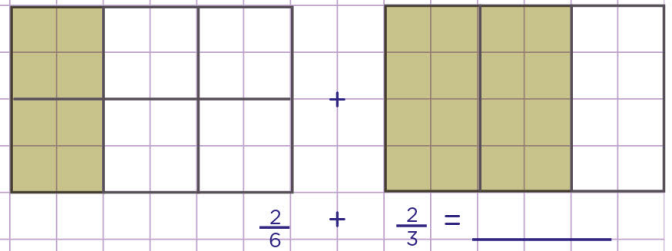
How to add fractions with unlike denominators using models

Using the given models as an aid, add the following fractions.

a.

$$\frac{7}{16} + \frac{1}{4} = \underline{\hspace{2cm}}$$

b.

$$\frac{2}{6} + \frac{2}{3} = \underline{\hspace{2cm}}$$

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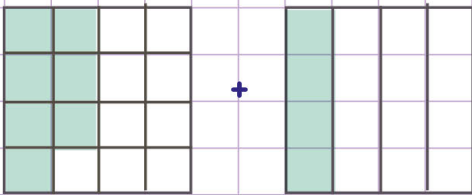Name: ....   Class: ....

How to add fractions with unlike denominators using models

Using the given models as an aid, add the following fractions.

a.

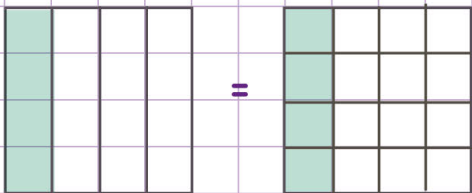$$\frac{7}{16} \ + \ \frac{1}{4} \ = \ \rule{2cm}{0.4pt}$$

Let's start by finding an equivalent fraction of $\frac{1}{4}$ with a denominator of 16.

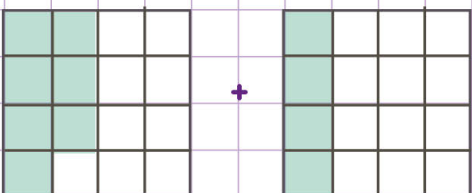$\frac{1}{4}$ is equivalent to $\frac{1 \times 4}{4 \times 4} = \frac{4}{16}$.

Now, let's draw the model for $\frac{4}{16}$.

$$\frac{1}{4} \ = \ \frac{4}{16}$$

Finally, let's add by counting the number of shaded regions/squares in the models.
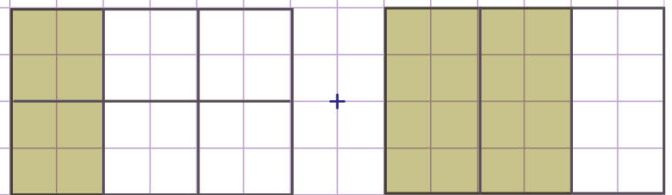
(Each shaded square represent $\frac{1}{16}$)

$$\frac{7}{16} \ + \ \frac{4}{16}$$

There are 11th $\frac{1}{16}$ shaded sqaures in the two models.

So, $\frac{7}{16} + \frac{1}{4} = \frac{7}{16} + \frac{4}{16} = \frac{11}{16}$

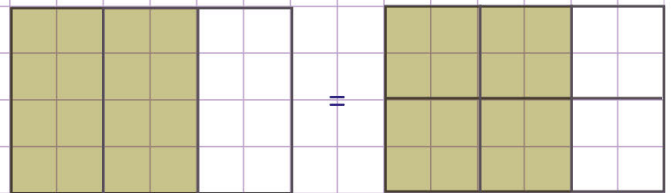Therefore, $\frac{7}{16} + \frac{1}{4} = \frac{11}{16}$

b.

$$\frac{2}{6} \ + \ \frac{2}{3} \ = \ \rule{2cm}{0.4pt}$$

Let's start by finding an equivalent fraction of $\frac{2}{3}$ with a denominator of 6.

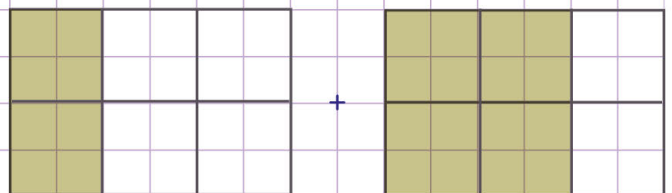$\frac{2}{3}$ is equivalent to $\frac{2 \times 2}{3 \times 2} = \frac{4}{6}$.

Now, let's draw the model for $\frac{4}{6}$.

$$\frac{2}{3} \ = \ \frac{4}{6}$$

Finally, let's add by counting the number of shaded regions/squares in the models.

(Each shaded square represent $\frac{1}{6}$)

$$\frac{2}{6} \ + \ \frac{4}{6}$$

There are 6th $\frac{1}{6}$ shaded sqaures in the two models.

So, $\frac{2}{6} + \frac{2}{3} = \frac{2}{6} + \frac{4}{6} = \frac{6}{6} = 1$

Therefore, $\frac{2}{6} + \frac{2}{3} = 1$