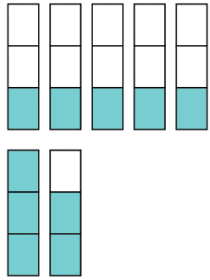# Activity 16 Assessment
Multiplying Fractions and Mixed Numbers

Multiplying Fractions and Mixed Numbers

| Models multiplication of a fraction by a whole number	Models multiplication of fractions or mixed numbers	Applies a rule for multiplying fractions, including mixed numbers	Solves a problem involving the multiplication of fractions or mixed numbers

$5 \times \frac{1}{3}$

I divided one rectangle into 3 equal pieces and shaded 1 part of the rectangle. I repeated the process for a total of 5 of these rectangles. Altogether, these combined to

$\frac{5}{3}$ or $1\frac{2}{3}$.

$\frac{1}{2} \times \frac{3}{4}$

$\frac{1}{2}$

$\frac{3}{4}$
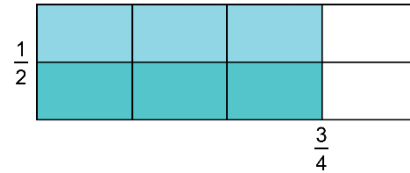
I drew a rectangle. Next, I drew a line to cut the width of the rectangle in half. Then I drew lines to cut the length into fourths. I shaded three-fourths of the rectangle light blue. Then I shaded one-half of the three-fourths a darker blue. This showed 3 of 8 parts as shaded dark blue. So, $\frac{1}{2} \times \frac{3}{4} = \frac{3}{8}$.

$1\frac{1}{2} \times 2\frac{5}{6}$

I can write the mixed numbers as improper fractions, then multiply the numerators and denominators.

$1\frac{1}{2} \times 2\frac{5}{6} = \frac{3}{2} \times \frac{17}{6}$

$= \frac{3 \times 17}{2 \times 6}$

$= \frac{51}{12}$

$= 4\frac{3}{12}$

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

A musician spends $3\frac{3}{8}$ h practicing scales each week. How many hours does the musician spend practising scales in $2\frac{1}{2}$ weeks?

$3\frac{3}{8} \times 2\frac{1}{2}$

$= \left(3 + \frac{3}{8}\right) \times \left(2 + \frac{1}{2}\right)$

$= (3 \times 2) + \left(3 \times \frac{1}{2}\right) + \left(\frac{3}{8} \times 2\right) + \left(\frac{3}{8} \times \frac{1}{2}\right)$

$= 6 + \frac{3}{2} + \frac{6}{8} + \frac{3}{16}$

$= 6 + \frac{24}{16} + \frac{12}{16} + \frac{3}{16}$

$= 6 + \frac{39}{16}$

$= 6 + 2\frac{7}{16}$

$= 8\frac{7}{16}$

The musician spends $8\frac{7}{16}$ h practising scales.

Observations/Documentation