# 1.7 Solve Problems Using Diagrams

**GOAL**

Use diagrams to solve problems about squares and square roots.

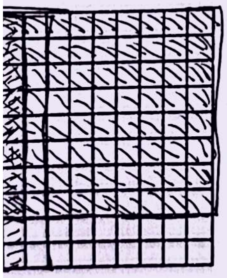
Draw a diagram to help you solve each problem.

**At-Home Help**

A piece of wood is 24 cm long and

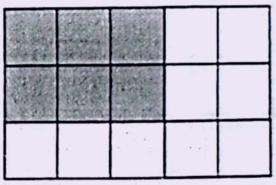
$\times \frac{4}{9}$ → iv) $\frac{1}{6}$

…nade the grid to show why $\frac{2}{3} \times \frac{5}{8} = \frac{10}{24}$.



…st two other pairs of fractions with a product of $\frac{10}{24}$.

$\frac{2}{4} \times \frac{5}{6}$ $\qquad$ $\frac{1}{2} \times \frac{10}{12}$




The coloured rectangle has $2 \times 3 = 6$ squares, so its area is $\frac{6}{15}$ square units.

$\frac{2}{3} \times \frac{3}{5} = \frac{6}{15}$

**Multiply.**

You can multiply the numerators and the denominators. For example,

$\frac{2}{3} \times \frac{3}{5} = \frac{2 \times 3}{3 \times 5}$ or $\frac{6}{15}$

d) $\frac{3}{8}$

3. a) Sh…

b) Li…