

**YOU & MATHS** **From words to symbols** Translate the following text into an equation and solve it. Also visualize the situation with a graphic representation.

A man is on a diet and goes into a shop to buy some turkey slices. He is given 3 slices which together weigh  $\frac{1}{3}$  of a pound, but his diet allows him to eat  $\frac{1}{4}$  of a pound. How much of the 3 slices can he eat while staying true to his diet?

One way to think about the situation is the following. Say the man can eat a fraction  $x$  of his 3 slices.

You know that 3 slices weigh  $\frac{1}{3}$  of a pound and writing it out in pounds you have  $x \cdot \frac{1}{3} = \frac{1}{4}$ , so the man can only eat  $\frac{3}{4}$  of what he was offered. How many slices is that?

You can represent 1 pound as 9 slices (let us imagine that the slices are equal). The man was offered 3 slices but his diet allows him to eat only  $\frac{1}{4}$  of the 9 slices, which is 2 slices and  $\frac{1}{4}$  of the last slice.

