Think Multiplication for Fractions

What it is: This strategy uses the relationship between multiplication and division to solve division problems. It involves thinking about quotient (answer to a division problem) as a missing factor in a multiplication problem.

What it sounds like: To divide a whole number by a fraction, it would sound like, "How many groups of $\frac{1}{4}$ in 3 wholes?" I know that there are $\frac{4}{4}$ in each whole so 3 equals $\frac{12}{4}$ and 12 times $\frac{1}{4}$ is $\frac{12}{4}$, so the quotient is 3.

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To divide a mixed number by a fraction like the one on the right we would ask, "How many groups of $\frac{3}{5}$ in $2\frac{2}{5}$?" I know that $2\frac{2}{5}$ is the same as $\frac{10}{5} + \frac{2}{5}$ or $\frac{12}{5}$ and 4 x $\frac{3}{5}$ is $\frac{12}{5}$, so the quotient is 4	$2\frac{2}{5} \div \frac{3}{5} = ?$ $? \times \frac{3}{5} = 2\frac{2}{5} = \frac{12}{5}$ $4 \times \frac{3}{5} = \frac{12}{5}$

When It's Useful: Think Multiplication is particularly useful when dividing fractions with common denominators or when dividing by a unit fraction (i.e. $\frac{1}{4}$).