

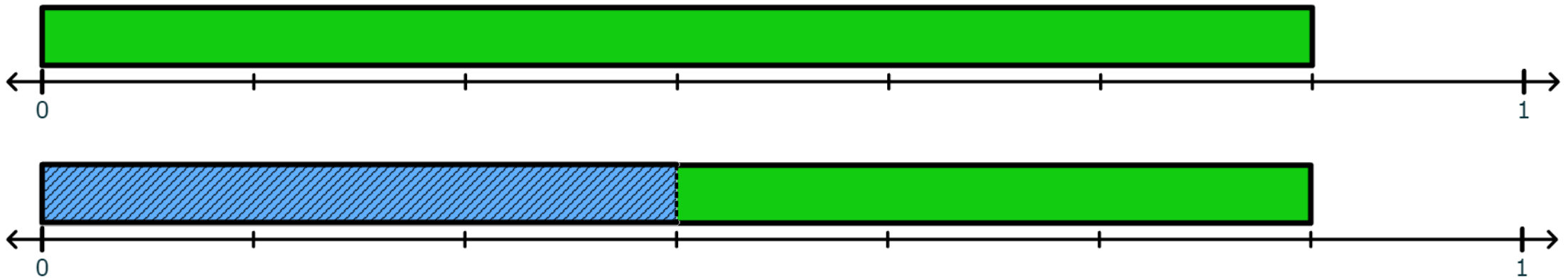
Multiplying & Dividing with Fractions

Demystifying Multiplication

$$\frac{1}{2} \times \frac{6}{7} = \frac{1 \times 6}{2 \times 7} = \frac{6}{14} = \frac{3}{7}$$

All HOW, no WHY

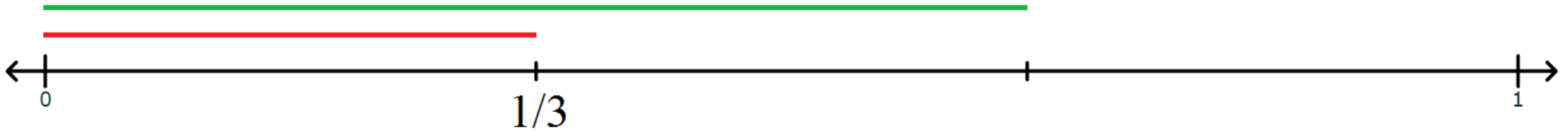
$\frac{1}{2} \times \frac{6}{7}$ means "one-half of six-sevenths"



Demystifying Division

$$\frac{2}{3} \div \frac{1}{3} = \frac{2}{3} \times \frac{3}{1} = \frac{6}{3} = 2 \quad \text{All HOW, no WHY}$$

$\frac{2}{3} \div \frac{1}{3}$ means "how many 1 thirds are in 2 thirds?"



A “hard” problem

Consider the problem $\frac{3}{4} \times 2\frac{1}{2}$.

- (a) Represent this problem with a diagram.
- (b) Can you explain how the standard algorithm can be seen in the diagram?