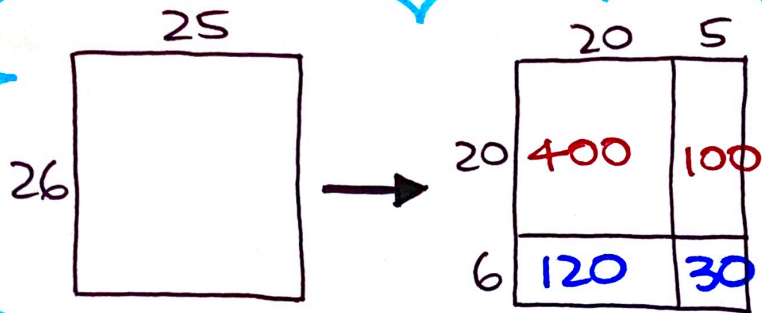


The product of 25 and 26 is 650. Prove it three ways.



Using place value to partition
the side lengths: $25 = 20 + 5$
 $26 = 20 + 6$

$$\begin{aligned}\text{Area} &= 400 + 100 + 120 + 30 \\ &= 500 + 150 \\ &= 650\end{aligned}$$

Using an area model.

$$\begin{array}{r} 25 \times \\ 26 \\ \hline 150 \\ 500 \\ \hline 650 \end{array}$$

Use the
formal
algorithm.

$$26 \times 25$$

$$20 + 5$$

$$26 \times 20 = 520$$

$$26 \times 5 = 130$$

$$\begin{aligned}\text{So, } 26 \times 25 &= 520 + 130 \\ &= 650\end{aligned}$$

Use place value to partition 25.
Multiply 26 by the tens, then the ones.

$$25 \times 26 = 50 \times 13 = 100 \times 6.5 = 650$$

double double
halve halve

Use doubling and halving to multiply.