

Multiplying Fractions

5th Grade

Straight across — and the surprise that the answer gets smaller.

Multiply the numerators together, and the denominators together. No common denominator needed.

$$a/b \times c/d = ac/bd$$

$$2/3 \times 4/5$$

$$8/15$$

Tops times tops, bottoms times bottoms.

$$1/2 \times 1/2$$

$$1/4$$

Half of a half. Multiplying by a fraction under 1 shrinks it.

$$3/4 \times 8$$

$$6$$

Write 8 as $8/1$ first.

$$2/3 \text{ of } 12$$

$$8$$

'Of' means multiply. $2/3 \times 12/1 = 24/3 = 8$.

THE COMMON MISTAKE

✗ **multiplying makes it bigger**

✓ **multiplying by a fraction under 1 makes it smaller**

Half of something is less than the something. Only multiplying by more than 1 grows a number.

Cancel before you multiply where you can — it keeps the numbers small.