

Multiplying Fractions

Multiplying one fraction by another is a new skill for Year 6, but don't panic — see the example for how it's done.

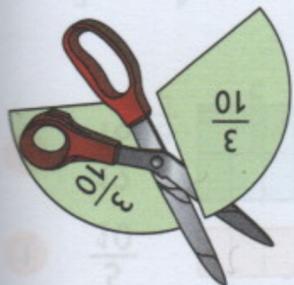
Example

What is $\frac{1}{2} \times \frac{2}{3}$?

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

Multiply the top numbers.

Multiply the bottom numbers.



Set A

Work out:

- 1 $\frac{2}{1} \times \frac{3}{1}$
- 2 $\frac{6}{1} \times \frac{1}{5}$
- 3 $\frac{1}{5} \times \frac{4}{3}$
- 4 $\frac{3}{2} \times \frac{5}{2}$
- 5 $\frac{7}{4} \times \frac{2}{3}$

Look at these number cards.

- | | | | |
|---|---|---|---|
| 2 | 3 | 5 | 9 |
|---|---|---|---|

Pick numbers from the cards to complete each calculation.

6 $\frac{1}{\square} \times \frac{\square}{3} = \frac{9}{2}$

7 $\frac{2}{1} \times \frac{\square}{\square} = \frac{10}{2}$

Rewrite the calculations using fractions, and work out the answers:

- 8 one half multiplied by one half
- 9 one quarter multiplied by one third
- 10 two thirds multiplied by one fifth

Set B

Work out:

- 1 $\frac{1}{2} \times \frac{8}{1}$
- 2 $\frac{3}{10} \times \frac{2}{1}$
- 3 $\frac{6}{5} \times \frac{3}{1}$
- 4 $\frac{10}{7} \times \frac{4}{3}$
- 5 $\frac{9}{2} \times \frac{4}{5}$

Look at these number cards.

- | | | | | |
|---|---|---|---|---|
| 2 | 3 | 4 | 6 | 8 |
|---|---|---|---|---|

Pick numbers from the cards to complete each calculation.

6 $\frac{\square}{2} \times \frac{5}{\square} = \frac{15}{8}$

7 $\frac{\square}{5} \times \frac{\square}{5} = \frac{\square}{10} = \frac{\square}{1}$

Work out, giving your answers in their simplest forms:

- 8 $\frac{1}{2} \times \frac{5}{2}$
- 9 $\frac{5}{3} \times \frac{6}{1}$
- 10 $\frac{7}{4} \times \frac{1}{8}$
- 11 $\frac{9}{10} \times \frac{7}{2}$

Set C

Work out, giving your answers in their simplest forms:

- 1 $\frac{3}{2} \times \frac{4}{1}$
- 2 $\frac{6}{7} \times \frac{7}{12}$
- 3 $\frac{1}{8} \times \frac{6}{11}$
- 4 $\frac{9}{4} \times \frac{5}{12}$

Are the following statements true or false?

- 5 $\frac{3}{4} \times \frac{2}{1} = \frac{6}{4}$
- 6 $\frac{5}{3} \times \frac{9}{1} = \frac{15}{1}$
- 7 $\frac{1}{3} \times \frac{8}{3} > \frac{6}{5} \times \frac{4}{1}$
- 8 $\frac{5}{3} \times \frac{4}{3} > \frac{2}{1} \times \frac{10}{7}$

Liane makes the three fraction cards below.

- | | | |
|---------------|---------------|---------------|
| $\frac{1}{4}$ | $\frac{3}{2}$ | $\frac{1}{6}$ |
|---------------|---------------|---------------|

Which two fraction cards does she multiply to give the:

- 9 smallest answer?
- 10 largest answer?