

Multiplying fractions



Multiply fractions by fractions or whole numbers, and simplify the product where you can.

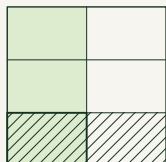
Name _____

Date _____

Straight across

To multiply two fractions, multiply the numerators together and multiply the denominators together: $\frac{a}{b} \times \frac{c}{d} = \frac{ac}{bd}$. To multiply a whole number by a fraction, write the whole number over 1 first. Simplify the product if the numerator and denominator share a common factor.

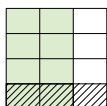
Worked example Find $\frac{1}{2} \times \frac{1}{3}$ using the grid.



1 of 2 columns shaded, 1 of 3 rows hatched.

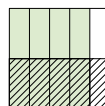
$$\frac{1}{2} \times \frac{1}{3} = \frac{1}{6}.$$

1. Use the grid to find $\frac{2}{3} \times \frac{1}{4}$.



Working

2. Use the grid to find $\frac{4}{5} \times \frac{1}{2}$.



Working

3. $\frac{3}{5} \times \frac{1}{2}$.

4. $\frac{1}{4} \times \frac{2}{7}$.

5. $\frac{3}{4} \times \frac{2}{3}$.

6. $\frac{2}{5} \times \frac{3}{4}$.

7. $2 \times \frac{1}{5}$.

8. $3 \times \frac{2}{7}$.

Multiplying fractions (continued)

Multiply fractions by fractions or whole numbers, and simplify the product where you can.



Name _____

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9. $\frac{5}{8} \times \frac{4}{9}$.

10. $6 \times \frac{5}{12}$.

11. Fill in the blank: $\frac{2}{3} \times \frac{\square}{5} = \frac{8}{15}$.

12. Is $\frac{2}{5} \times \frac{3}{4} = \frac{6}{20}$ correct?

13. Which is greater: $\frac{2}{3} \times \frac{3}{5}$ or $\frac{3}{4} \times \frac{2}{5}$?

14. $\frac{7}{12} \times \frac{6}{7}$.

15. Explain in one short sentence why multiplying by $\frac{1}{2}$ makes a positive number smaller.

16. A recipe uses $\frac{3}{4}$ of a cup of milk per batch. You make $\frac{2}{3}$ of a batch. How much milk is needed?

17. $1\frac{1}{2} \times \frac{2}{3}$.
