LO: I can multiply fractions

There are 3 simple steps to multiply fractions

1. Multiply the top numbers (the *numerators*).

2. Multiply the bottom numbers (the *denominators*).

3. Simplify the fraction if needed.

LO: I can multiply fractions

Example:

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

Step 1. Multiply the top numbers:

$$\frac{1}{2} \times \frac{2}{5} = \frac{1 \times 2}{} = \frac{2}{}$$

Step 2. Multiply the bottom numbers:

$$\frac{1}{2} \times \frac{2}{5} = \frac{1 \times 2}{2 \times 5} = \frac{2}{10}$$

Step 3. Simplify the fraction :

$$\frac{2}{10} = \frac{1}{5}$$

LO: I can multiply fractions

Try:

2/4 x 3/8=

When there is a mixed number fraction, convert to improper then do the calculation.

<u>LO: I can multiply fractions</u>

<u>Mild (Q. number is at the end for some reason- sorry!)</u>

<u>Spicy</u>

Mild:

$\frac{1}{3} \times \frac{1}{3} =$ 1)

$\frac{1}{5} \times \frac{1}{5} =$ 2)

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

$\frac{2}{7} \times \frac{4}{5} =$ 4)

$\frac{1}{2} \times \frac{2}{5} =$ 5)

Spicy:

1) $\frac{7}{9} \times \frac{4}{5} =$

2) $\frac{6}{7} \times \frac{11}{12} =$

3) $\frac{10}{11} \times \frac{12}{15} =$

4) $2\frac{1}{3} \times \frac{1}{2} =$

5) $4\frac{1}{5} \times \frac{1}{4} =$

LO: I can multiply fractions

Mild

1. $\frac{1}{4}$ × $\frac{1}{2}$ =

2. $\frac{2}{5}$ × $\frac{1}{4}$ =

3. $\frac{2}{3}$ × $\frac{1}{2}$ =

6. $\frac{1}{3}$ × $\frac{1}{6}$ =

7. $\frac{3}{8}$ × $\frac{2}{3}$ =

8. $\frac{1}{5}$ × $\frac{5}{8}$ =

Spicy

1. $\frac{3}{4}$ × $\frac{1}{3}$ =

2. $\frac{2}{5}$ × $\frac{1}{3}$ =

3. $\frac{4}{5}$ × $\frac{1}{6}$ =

6. $\frac{1}{2}$ × $\frac{2}{3}$ =

7. $\frac{7}{12}$ × $\frac{2}{3}$ =

8. $\frac{1}{4}$ × $\frac{5}{7}$ =

LO: I can multiply fractions

Answers

Mild

1. $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$
6. $\frac{1}{3} \times \frac{1}{6} = \frac{1}{18}$

2. $\frac{2}{5} \times \frac{1}{4} = \frac{2}{20}$; $\frac{1}{10}$
7. $\frac{3}{8} \times \frac{2}{3} = \frac{6}{24}$; $\frac{1}{4}$

3. $\frac{2}{3} \times \frac{1}{2} = \frac{2}{6}$; $\frac{1}{3}$
8. $\frac{1}{5} \times \frac{5}{8} = \frac{5}{40}$; $\frac{1}{8}$

Spicy

1. $\frac{3}{4} \times \frac{1}{3} = \frac{3}{12}$; $\frac{1}{4}$
6. $\frac{1}{2} \times \frac{2}{3} = \frac{2}{6}$; $\frac{1}{3}$

2. $\frac{2}{5} \times \frac{1}{3} = \frac{2}{15}$
7. $\frac{7}{12} \times \frac{2}{3} = \frac{14}{36}$; $\frac{7}{18}$

3. $\frac{4}{5} \times \frac{1}{6} = \frac{4}{30}$; $\frac{2}{15}$
8. $\frac{1}{4} \times \frac{5}{7} = \frac{5}{28}$

LO: I know how to divide fractions

There are 3 Simple Steps to Divide Fractions:

Step 1. Turn the second fraction *(the one you want to divide by)* upside down (this is now a [reciprocal]).

Step 2. [Multiply] the first fraction by that reciprocal

Step 3. [Simplify] the fraction (if needed)

LO: I know how to divide fractions

Example:

$$\frac{1}{2} \div \frac{1}{6}$$

Step 1. Turn the second fraction upside down (it becomes a **reciprocal**):

$$\frac{1}{6} \text{ becomes } \frac{6}{1}$$

Step 2. Multiply the first fraction by that **reciprocal**:

(multiply tops ...)

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

(... multiply bottoms)

Step 3. Simplify the fraction:

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

LO: I know how to divide fractions

Try:

2/8 divided by 1/4=

LO: I know how to divide fractions

1. $\frac{3}{5}$ ÷ 2 =

2. $\frac{1}{2}$ ÷ 2 =

3. $\frac{3}{4}$ ÷ 6 =

4. $\frac{5}{6}$ ÷ 2 =

5. $\frac{5}{8}$ ÷ 4 =

6. $\frac{1}{4}$ ÷ 7 =

7. $\frac{7}{8}$ ÷ 3 =

8. $\frac{7}{9}$ ÷ 5 =

When you divide by a whole, make the denominator 1 to turn it into a fraction.

LO: I know how to divide fractions

Answers

1. $\dfrac{3}{5} \div 2 = \dfrac{3}{10}$ 2. $\dfrac{1}{2} \div 2 = \dfrac{1}{4}$

3. $\dfrac{3}{4} \div 6 = \dfrac{3}{24}$ 4. $\dfrac{5}{6} \div 2 = \dfrac{5}{12}$

                $= \dfrac{1}{8}$

5. $\dfrac{5}{8} \div 4 = \dfrac{5}{32}$ 6. $\dfrac{1}{4} \div 7 = \dfrac{1}{28}$

7. $\dfrac{7}{8} \div 3 = \dfrac{7}{24}$ 8. $\dfrac{7}{9} \div 5 = \dfrac{7}{45}$

Please only do the next slide if you are not coming in to school at all.

LO: I know how to divide fractions

Mild (is numbered 6 but is no.1)

Spicy

6) $\dfrac{1}{2} \div \dfrac{1}{4} =$

7) $\dfrac{1}{5} \div \dfrac{3}{10} =$

8) $\dfrac{1}{6} \div \dfrac{1}{12} =$

9) $\dfrac{7}{2} \div \dfrac{5}{4} =$

10) $\dfrac{9}{7} \div \dfrac{1}{14} =$

$\dfrac{7}{9} \div \dfrac{4}{7} =$

$\dfrac{6}{7} \div \dfrac{11}{12} =$

$\dfrac{14}{15} \div \dfrac{8}{9} =$

$\dfrac{16}{17} \div \dfrac{21}{23} =$

$4\dfrac{1}{3} \div \dfrac{1}{2} =$