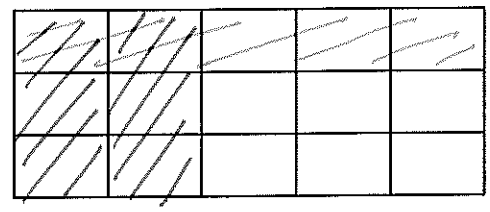


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# Multiplying Fractions Notes and Practice

About  $\frac{1}{3}$  of the land in the United States is forests.

About  $\frac{2}{5}$  of the U.S. forests are publicly owned.



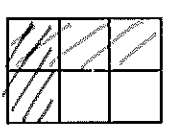
1. What portion of the rectangle represents  $\frac{1}{3}$ ?  $\frac{5}{15}$

2. What portion of the rectangle represents  $\frac{2}{5}$  of  $\frac{1}{3}$ ?  $\frac{2}{15}$

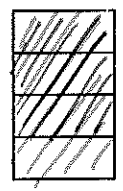
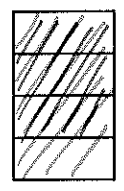
3. About what fraction of the U.S. land is publically owned forests? Explain your answer in a complete sentence.  $\frac{2}{15}$  of the U.S. land is forests.  $\frac{2}{5}$  of  $\frac{1}{3}$  is  $\frac{2}{15}$ .

## Let's Practice!!

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

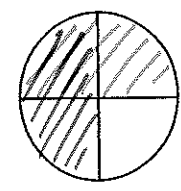


$$2 \times \frac{3}{4} = \frac{6}{4} = \frac{3}{2}$$



$$\frac{6}{4} = \frac{1}{2} \times \frac{1}{2}$$

$$\frac{12}{4} = \frac{3}{1}$$



$$= \frac{1}{4}$$

## If you're musically inclined:

- Half of a half note is a quarter note
- Half of a quarter note is an eighth note
- Half of an eighth note is a sixteenth note
- Etc, etc, etc...



## ★ Decimals

- + - line up place value
- x don't line up place value

## ★ Fractions

- + - find common denominator
- x don't find common denominator

**To multiply fractions** do NOT find a common denominator!! Simply multiply the numerators straight across and the multiply the denominators straight across!!  
 \*\*Always simplify!!

## Let's Practice!!

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

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

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

$$\frac{1}{4} \times \frac{7}{8} = \frac{7}{32}$$

$$\frac{2}{3} \times \frac{5}{6} = \frac{10}{18} = \frac{5}{9}$$

$$\frac{3}{4} \times 5 = \frac{15}{4} = 3\frac{3}{4}$$

**Simplifying Before Multiplying**

$$1 \frac{2}{7} \times \frac{3}{8} = \frac{3}{28}$$

$$1 \frac{2}{3} \times \frac{9}{10} = \frac{3}{5}$$

$$1 \frac{3}{3} \times \frac{3}{7} = \frac{1}{7}$$

$$1 \frac{4}{9} \times \frac{1}{8} = \frac{1}{18}$$

$$1 \frac{5}{6} \times \frac{3}{5} = \frac{1}{2}$$

$$3 \frac{3}{12} \times \frac{4}{5} = \frac{3}{5}$$

**Multiplying Mixed Numbers** \*convert to improper first!

$$\frac{1}{4} \times 8 \frac{4}{9} = \frac{16}{9}$$

$$1 \frac{1}{4} \times \frac{16}{9} = \frac{19}{9} = 2 \frac{1}{9}$$

$$\frac{16}{3} = 5 \frac{1}{3} \times 3 = \frac{16}{1} = 16$$

$$\frac{19}{8} = 2 \frac{3}{8} \times 4 = \frac{19}{2} = 9 \frac{1}{2}$$

$$2 \frac{5}{8} = 3 \frac{1}{8} \times 3 \frac{1}{5} = \frac{16}{5}$$

$$\frac{10}{9} = 1 \frac{1}{9} \times 4 \frac{1}{2} = \frac{9}{2}$$

$$\frac{7}{3} = 2 \frac{1}{3} \times 2 \frac{2}{5} = \frac{12}{5}$$

$$5 \frac{2}{8} = \frac{10}{2} = \frac{10}{1} = 10$$

$$5 \frac{10}{19} \times \frac{9}{21} = \frac{5}{1} = 5$$

$$1 \frac{7}{8} \times \frac{4}{5} = 2 \frac{28}{5} = 5 \frac{3}{5}$$