

# MULTIPLYING FRACTIONS

NAME: \_\_\_\_\_

## HELPFUL EXAMPLES

A.  $\frac{1}{4} \times 12 = 12 \div 4 = 3$

IF THE NUMERATOR (TOP NUMBER) IS ONE YOU CAN DIVIDE THE WHOLE NUMBER (12) BY THE DENOMINATOR (BOTTOM NUMBER).

B.  $\frac{3}{5} \times \frac{3}{4} = \frac{3}{5} \times \frac{3}{4} = \frac{9}{20}$

A SIMPLE WAY TO MULTIPLY FRACTIONS IS TO MULTIPLY STRAIGHT ACROSS. MULTIPLY THE TWO NUMERATORS AND DENOMINATORS.

C.  $\frac{2}{9} \times 18 = \frac{2}{9} \times \frac{18}{1} = \frac{36}{9}$

BEFORE MULTIPLYING STRAIGHT ACROSS YOU NEED TO CHANGE THE 18 INTO A FRACTION. DO YOU SEE HOW WE PUT THE 18 OVER 1?  $18 = \frac{18}{1}$ .

ON THIS PROBLEM YOU END UP WITH AN IMPROPER FRACTION. IT NEEDS TO BE SIMPLIFIED.

$$\frac{36}{9} \div 9 = \frac{4}{1} = 4$$

**NOW YOUR TURN. USE THE EXAMPLES ABOVE TO HELP SOLVE THESE PROBLEMS.**

**DON'T FORGET TO SIMPLIFY.**

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

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

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

4.  $\frac{2}{5} \times \frac{1}{4} =$

5.  $12 \times \frac{1}{6} =$

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

7.  $\frac{3}{7} \times 5 =$

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

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

10.  $14 \times \frac{3}{8} =$

11.  $\frac{4}{7} \times \frac{5}{8} =$

12.  $\frac{1}{3} \times 21 =$

## ANOTHER EXAMPLE

DID YOU KNOW YOU CAN SIMPLIFY BEFORE MULTIPLYING?

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

DIVIDE NUMERATOR AND DENOMINATOR BY 2.

DIVIDE NUMERATOR AND DENOMINATOR BY 5.

**YOUR TURN. DON'T FORGET, YOU HAVE TO DO THE SAME TO THE TOP AND BOTTOM.**

13.  $\frac{1}{9} \times \frac{3}{4} =$

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

15.  $6 \times \frac{11}{12} =$

16.  $\frac{5}{6} \times \frac{1}{6} =$

17.  $\frac{3}{4} \times 18 =$

18.  $\frac{9}{10} \times \frac{5}{7} =$

19.  $\frac{2}{5} \times \frac{2}{3} =$

20.  $\frac{2}{3} \times \frac{3}{8} =$