

INTRO INTO MULTIPLYING FRACTIONS

EXAMPLE #1 RELATING MULTIPLICATION TO DIVISION

$$8 \div 2 = 4$$

$$\frac{1}{2} \times 8 \text{ MEANS } \frac{1}{2} \text{ OF } 8 \text{ OR } \textcircled{1} \textcircled{2} \textcircled{1} \textcircled{2} \textcircled{1} \textcircled{2} \textcircled{1} \textcircled{2}$$

YOU ARE CUTTING THE 8 INTO 4 EQUAL PIECES, IN OTHER WORDS, YOU ARE DIVIDING 8 BY 2, WHICH EQUALS 4.

ANSWER

NOW YOUR TURN, DIVIDE THE WHOLE NUMBER BY DENOMINATOR

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

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

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



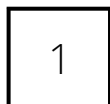
4. $\frac{1}{4} \times 12 = 3$

5. $\frac{1}{6} \times 18 = 3$

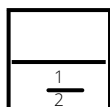
6. $\frac{1}{7} \times 35 = 5$

EXAMPLE #2 DRAWING

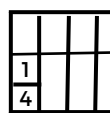
$$\frac{1}{4} \times \frac{1}{2} \text{ MEANS } \frac{1}{4} \text{ OF } \frac{1}{2}$$



← 1 RECTANGLE



← $\frac{1}{2}$



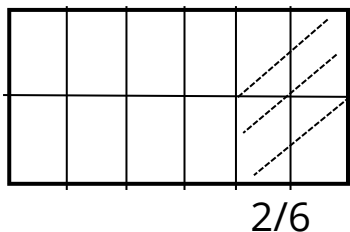
← $\frac{1}{4} \text{ OF } \frac{1}{2} = \frac{1}{8}$

WE CAN USE A FIGURE TO BETTER UNDERSTAND THIS PROBLEM. WE HAVE 1/2 OF THE WHOLE RECTANGLE AND WE ARE GOING TO TAKE 1/4 OF THAT, WHICH GIVES US 1/8 OF THE WHOLE FIGURE.

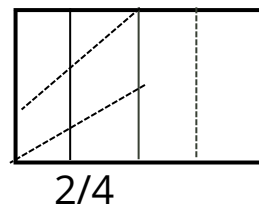
NOW YOUR TURN, USE THE RECTANGLES TO HELP SOLVE THE PROBLEMS BELOW

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

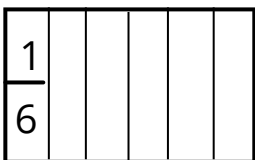
1. separate the rectangle into 2 parts $\frac{1}{2}$
2. shade in $\frac{2}{3}$ of one of the two pieces.
3. cut the other 4 parts into halves to make the pieces all the same size.
4. This shows you have two out of six pieces or $\frac{2}{6}$



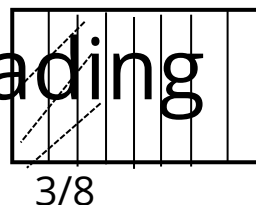
8. $\frac{2}{2} \times \frac{1}{2} = \frac{2}{4}$



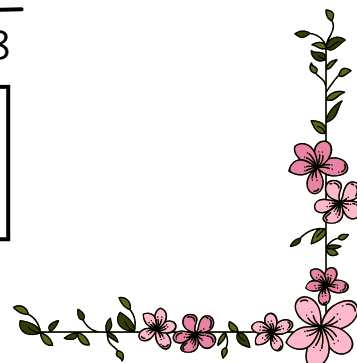
1. $\frac{1}{2} \times \frac{1}{3} = \frac{1}{6}$



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



Add a subheading



MULTIPLYING FRACTIONS - PRACTICE

THERE'S IS AN EASY WAY TO MULTIPLY FRACTIONS. MULTIPLY THE NUMERATORS(TOP NUMBERS) AND MULTIPLY THE DENOMINATORS(BOTTOM NUMBERS).

EXAMPLE # 3- MULTIPLYING STRAIGHT ACROSS

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

$$\frac{3}{2} \times 8 = \frac{3}{2} \times \frac{8}{1} = \frac{24}{2}$$

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

BEFORE MULTIPLYING STRAIGHT ACROSS YOU NEED TO CHANGE THE 8 INTO A FRACTION. DO YOU SEE HOW WE PUT THE 8 OVER 1? $8 = \frac{8}{1}$

ON THIS PROBLEM, YOU END UP WITH IMPROPER FRACTION. YOU WILL NEED TO SIMPLIFY.

$$\frac{24}{2} \div \frac{2}{2} = \frac{12}{1} = 12$$

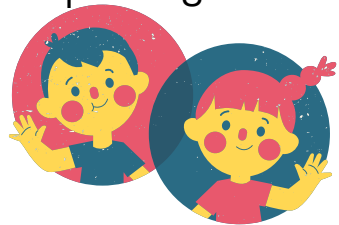
NOW YOUR TURN. MULTIPLY STRAIGHT ACROSS TO SOLVE THESE PROBLEMS .DON'T FORGET TO SIMPLIFY.

ANSWER

1. $\frac{4}{3} \times \frac{1}{5} = \frac{4}{15}$

2. $\frac{7}{6} \times \frac{3}{2} = \frac{21}{12}$

3. $\frac{9}{8} \times \frac{2}{1} = \frac{18}{8}$



4. $\frac{11}{2} \times \frac{6}{2} = \frac{66}{4}$

5. $\frac{2}{8} \times 10 = \frac{20}{8}$

6. $6 \times \frac{5}{4} = \frac{30}{4}$

7. $\frac{8}{5} \times \frac{8}{2} = \frac{64}{10}$

8. $\frac{7}{6} \times \frac{2}{4} = \frac{14}{24}$

9. $11 \times \frac{5}{10} = \frac{55}{10}$

10. $\frac{5}{2} \times \frac{6}{5} = \frac{30}{10}$

11. $\frac{4}{3} \times 8 = \frac{32}{3}$

12. $\frac{6}{5} \times \frac{15}{8} = \frac{18}{8}$

13. $\frac{7}{3} \times \frac{9}{2} = \frac{63}{6}$

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

15. $\frac{7}{5} \times 20 = \frac{28}{1}$

