

**Review adding and subtracting Fractions**\* Denominator must be the same #

\* LCM

\* Add Numerator

\* Keep denominator

$$1) \frac{2}{3} + \frac{1}{4} \quad \text{LCM: 12} \quad \frac{2(4)}{3(4)} + \frac{1(3)}{4(3)} \rightarrow \frac{8}{12} + \frac{3}{12} \rightarrow \boxed{\frac{11}{12}}$$

$$2) \frac{5}{8} + \frac{3}{4} \quad \text{LCM: 8} \quad \frac{5}{8} + \frac{3(2)}{4(2)} \rightarrow \frac{5}{8} + \frac{6}{8} \rightarrow \boxed{\frac{11}{8}} \text{ OR } \boxed{1 \frac{3}{8}}$$

$$3) \frac{5}{6} - \frac{1}{3} \quad \text{LCM: 6} \quad \frac{5}{6} - \frac{1(2)}{3(2)} \rightarrow \frac{5}{6} - \frac{2}{6} \rightarrow \frac{3}{6} \rightarrow \boxed{\frac{1}{2}}$$

$$4) \frac{2}{3} - \frac{1}{2} \quad \text{LCM: 6} \quad \frac{2(2)}{3(2)} - \frac{1(3)}{2(3)} \rightarrow \frac{4}{6} - \frac{3}{6} \rightarrow \boxed{\frac{1}{6}}$$

- Dividers Binders
- \* Warm-ups
  - \* U1
    - D1 - number system
    - D2 - Integer Operations
    - D3 - Real World Applications
    - Review adding/sub fractions

**Multiplying Fractions**

1. Multiply tops

2. Multiply Bottoms

3. Simplify

$$\textcircled{1} \quad \frac{1}{12} \cdot \frac{3}{4} \rightarrow \frac{3}{48}$$

$$\frac{3}{48} \xrightarrow{\div 3} \frac{1}{16}$$

$$\textcircled{2} \quad 3 \cdot \frac{1}{3} \rightarrow \frac{3}{1} \cdot \frac{1}{3} \rightarrow \frac{3}{3} \rightarrow \boxed{1}$$

## Dividing Fractions

1. Keep first fraction
2. Change the sign to multiply
3. Flip the 2nd Fraction
4. Multiplication rules

$$\textcircled{1} \frac{3}{4} \div \frac{1}{4} \rightarrow \frac{3}{4} \cdot \frac{4}{1} \rightarrow \frac{12}{4} \rightarrow \boxed{3}$$

$$\textcircled{2} \frac{1}{2} \div \frac{1}{4} \rightarrow \frac{1}{2} \cdot \frac{4}{1} \rightarrow \frac{4}{2} \rightarrow \boxed{2}$$

Practice Assignment

Name: \_\_\_\_\_

0 25 50 75 100

1. Multiply the following fractions:

a.  $\frac{1}{8} \times \frac{2}{3} \rightarrow \frac{2}{24} \rightarrow \boxed{\frac{1}{12}}$

b.  $\frac{3}{5} \times \frac{10}{11} \rightarrow \frac{30}{55} \rightarrow \boxed{\frac{6}{11}}$

c.  $\frac{8}{9} \times \frac{3}{4} \rightarrow \frac{24}{36} \rightarrow \boxed{\frac{2}{3}}$

d.  $\frac{7}{10} \times \frac{2}{5} \rightarrow \frac{14}{50} \rightarrow \boxed{\frac{7}{25}}$

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

$\frac{3}{2} \cdot \frac{7}{4}$

$\boxed{2\frac{1}{8}}$

OR

$\boxed{2\frac{5}{8}}$

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

$\frac{7}{3} \cdot \frac{27}{5}$

$\boxed{16\frac{3}{5}}$

OR

$\boxed{12\frac{3}{5}}$

g.  $\frac{1}{2} \times 2\frac{1}{8}$

$\frac{1}{2} \cdot \frac{17}{8}$

$\boxed{\frac{17}{16}}$

OR

$\boxed{1\frac{1}{16}}$

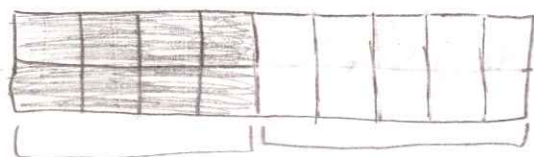
h.  $5 \times \frac{1}{5}$

$\frac{5}{1} \cdot \frac{1}{5}$

$\boxed{1}$

2. Sara just turned 18 years old. She spent  $\frac{4}{9}$  of her life living in Atlanta, GA. How many years did Sara live in Atlanta? Draw a picture to model the scenario.

Short cut  $\frac{18}{1} \cdot \frac{4}{9} \rightarrow \frac{8}{1} \rightarrow 8 \text{ years}$



$\frac{4}{9}$  in  
Atlanta

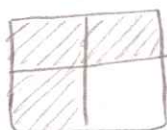
$\frac{5}{9}$  not  
in Atl

$\frac{18 \text{ years}}{9 \text{ sect.}} \rightarrow \frac{2 \text{ years}}{1 \text{ sect.}}$

4 shaded sections  $\cdot 2 \text{ years a sect.} \rightarrow \boxed{8 \text{ years}}$

3. Tiffany buys 2 dozen roses. Of these roses,  $\frac{3}{4}$  are red, and the rest are white. How many white roses did she buy? Draw a picture to model the scenario.

$\frac{24 \text{ roses}}{4 \text{ sect.}} \rightarrow \frac{6 \text{ roses}}{1 \text{ sect.}}$



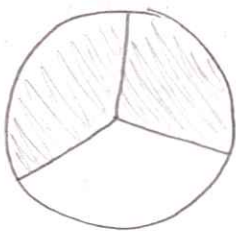
$3 \text{ sect.} \cdot \frac{6 \text{ roses}}{1 \text{ sect.}} \rightarrow 18 \text{ roses are red}$

$24 - 18 \rightarrow \boxed{6 \text{ roses are white}}$

white roses  
↓

OR  $24 \cdot \frac{1}{4} \rightarrow \frac{24}{4} \rightarrow \boxed{6 \text{ white roses}}$

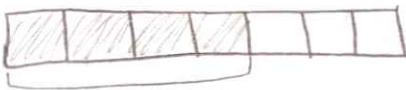
4.  $\frac{2}{3}$  of a number is 8. What is the number? Draw a picture to model the scenario.



2 shaded areas = 8  
each area = 4

3 total parts  $\cdot 4 \rightarrow$  12

5. Tiffany spent  $\frac{4}{7}$  of her money on a teddy bear. If the teddy bear costs \$24, how much money did she have at first? Draw a picture to model the scenario.



24 total

$\frac{24}{4} \rightarrow \$6$  each section

7 sect  $\cdot \$6 \rightarrow$  \$42 to start

6. A skating rink sold 44 children's tickets, which represented  $\frac{2}{3}$  of the total number of tickets sold. How many total tickets were sold?

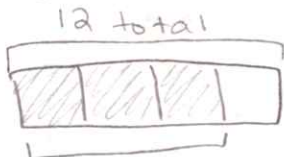


44 tickets

$\frac{44}{2} \rightarrow 22$  tickets each sect.

3  $\cdot 22 \rightarrow$  66 tickets sold

7. My grandparents spent  $\frac{3}{4}$  of the year living in Florida. How many months do they spend in Florida?



12 total

$\frac{12}{4} \rightarrow 3$  month a sect. 3 sect  $\cdot 3$  months

$\rightarrow 9$  mths in Florida

Practice Assignment

Name: \_\_\_\_\_

0 25 50 75 100

1. Divide the following fractions:

a.  $4 \div \frac{2}{3}$

$\frac{4}{1} \cdot \frac{3}{2} \rightarrow \frac{12}{2} \rightarrow \boxed{6}$

b.  $\frac{3}{2} \div \frac{1}{6}$

$\frac{3}{2} \cdot \frac{6}{1} \rightarrow \frac{18}{2} \rightarrow \boxed{9}$

c.  $\frac{5}{6} \div \frac{1}{2}$

$\frac{5}{6} \cdot \frac{2}{1} \rightarrow \frac{10}{6}$   
 $\boxed{\frac{5}{3}}$

d.  $\frac{7}{8} \div \frac{1}{4}$

$\frac{7}{8} \cdot \frac{4}{1} \rightarrow \frac{28}{8}$   
 $\boxed{\frac{7}{2}}$

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

$\frac{13}{2} \div \frac{5}{2} \rightarrow \frac{13}{2} \cdot \frac{2}{5}$   
 $\frac{26}{10} \rightarrow \boxed{\frac{13}{5}}$

f.  $5\frac{1}{2} \div 1\frac{1}{4}$

$\frac{11}{2} \div \frac{5}{4}$   
 $\frac{11}{2} \cdot \frac{4}{5} \rightarrow \frac{44}{10} \rightarrow \boxed{\frac{22}{5}}$

g.  $5\frac{3}{4} \div 1\frac{1}{8}$

$\frac{23}{4} \div \frac{9}{8} \rightarrow \frac{23}{4} \cdot \frac{8}{9}$   
 $\boxed{\frac{46}{9}}$

h.  $6 \div 2\frac{1}{3}$

$6 \div \frac{7}{3} \rightarrow 6 \cdot \frac{3}{7}$   
 $\boxed{\frac{18}{7}}$

2. Charles has 6 cups of popcorn. How many friends can he share the popcorn with if each is given  $\frac{2}{3}$  cup? Draw a diagram to represent the problem and then solve it.

3. Leia has  $\frac{3}{4}$  cup of laundry detergent left in the detergent bottle. Each load of laundry requires  $\frac{1}{2}$  cup of detergent. How many loads of laundry can Lea wash? Draw a diagram to represent the problem and then solve it.