

## Warm Up

$$1. -\frac{3}{5} + \left(-\frac{4}{9}\right) =$$

$$-\frac{27}{45} + \left(-\frac{20}{45}\right) = -\frac{47}{45} = -1\frac{2}{45}$$

-Grab a homework  
from the back table

$$2. -3\frac{1}{4} - \left(-6\frac{2}{5}\right) =$$

$$-3\frac{5}{20} - \left(-6\frac{8}{20}\right) = 3\frac{3}{20}$$

# Multiplying and Dividing Fractions

## Steps to multiply fractions

1. If mixed number, change to improper
2. Cross reduce, if possible **\*\*Shortcut!**
3. Multiply numerators
4. Multiply denominators
5. Reduce, if possible

$$\frac{3}{\cancel{1}\cancel{7}} \cdot \frac{\cancel{7}1}{8} = \boxed{\frac{3}{8}}$$

$$\frac{21 \div 7}{56 \div 7} = \boxed{\frac{3}{8}}$$

$$\frac{4\cancel{1}\cancel{2}}{3\cancel{1}\cancel{5}} \cdot \frac{\cancel{5}1}{\cancel{9}3} = \boxed{\frac{4}{9}}$$

$$\frac{5}{6} \cdot \frac{\overset{+1}{\cancel{2}}1}{\underset{\times 4}{\cancel{4}}}$$

$$\frac{5}{\cancel{2}\cancel{6}} \cdot \frac{\cancel{9}3}{4} = \frac{15}{8}$$

$$\boxed{1\frac{7}{8}}$$

$$\left( \overset{+1}{\cancel{9}}\frac{1}{\underset{\times 3}{\cancel{3}}} \right) \cdot \left( \overset{+1}{\cancel{2}}\frac{1}{\underset{\times 4}{\cancel{4}}} \right)$$

$$\frac{7\cancel{2}\cancel{8}}{\cancel{1}\cancel{3}} \cdot \frac{\cancel{9}3}{41} = \frac{21}{1} = \boxed{21}$$

## Steps to divide fractions

1. If mixed number, change to improper
2. Keep, Change, Flip
3. Follow multiplication steps

$$\frac{11}{3} \div \frac{2}{6} =$$

$$\frac{11}{\cancel{3}} \cdot \frac{\cancel{6}^2}{2} = \frac{22}{2} = 11$$

$$\frac{13}{4} \div \frac{1}{2} =$$

$$\frac{13}{\cancel{4}} \cdot \frac{\cancel{2}^1}{1} = \frac{13}{2} = 6\frac{1}{2}$$

$$\left(4\frac{1}{5}\right) \div \left(1\frac{1}{2}\right) =$$

$$\frac{21}{5} \div \frac{3}{2}$$

$$\frac{\cancel{21}}{5} \cdot \frac{2}{\cancel{3}^1} = \frac{14}{5} = 2\frac{4}{5}$$

$$-\frac{5}{9} \cdot \frac{27}{35}$$

$$-3\frac{1}{5} \cdot -2\frac{1}{2}$$

$$\frac{-3}{2} \div \frac{-10}{7}$$

$$2\frac{1}{4} \div 3$$

