4-8 Divide Mixed Numbers

KEEP, CHANGE, FLIP!

Dividing Mixed Numbers:

Steps:

1) Change all mixed numbers into improper fractions
    a. Multiply denominator by the whole number then add numerator. Put answer over original denominator.
2) **Keep** the first fraction the same
3) **Change** the DIVISION sign to a MULTIPLICATION sign
4) **Flip** the second fraction upside down (the reciprocal)
5) Simplify by factors (if possible)
6) Multiply numerators together
7) Multiply denominators together
8) Simplify and/or change improper fraction back into a mixed number.

Examples:

$$6\tfrac{2}{5} \div 2\tfrac{2}{7}$$

$$\frac{32}{5} \div \frac{16}{7}$$

$$\frac{\overset{2}{\cancel{32}}}{5} \times \frac{7}{\underset{1}{\cancel{16}}} = \frac{14}{5} = 2\tfrac{4}{5}$$

$$1\frac{1}{9} \div 6\frac{2}{3}$$

$$\frac{10}{9} \div \frac{20}{3} = \frac{10}{9} \times \frac{3}{20} = \boxed{\frac{1}{6}}$$

$$8\frac{1}{13} \div 5$$

$$\frac{105}{13} \div \frac{5}{1} = \frac{105}{13} \times \frac{1}{5} = \frac{21}{13} = \boxed{1\frac{8}{13}}$$