Fractions 08: Dividing Fractions Notes Answers

Name_____

Steps in dividing fractions:

1. Turn any mixed numbers into improper fractions.
2. Put the invisible 1 under any whole numbers.
3. Copy dot flip!
4. Slash anything that can be reduced.
5. Multiply across the top and bottom.
6. Check! Change any improper fractions into mixed numbers and reduce if needed.

Copy dot flip:

$$\frac{20}{33} \div \frac{5}{44} = \frac{4\cancel{20}}{3\cancel{33}} \cdot \frac{4\cancel{44}}{1\cancel{5}} = \frac{16}{3} = 5r1 = 5\frac{1}{3}$$

Why does copy dot flip work?

Copy dot flip:

$42 \div 7 = \underline{\quad 6 \quad}$

$$\frac{42}{1} \div \frac{7}{1} = \frac{42}{1} \cdot \frac{1}{7} = \frac{42}{7} = 42 \div 7$$

A number or fraction that is flipped is called the reciprocal.
They always multiply to = 1

Reciprocal of 6:

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

$$\frac{6}{1} \times \frac{1}{6} = \frac{6}{6} = 1$$

Copy dot flip:

$$10\frac{5}{9} \div 3\frac{3}{4} = \frac{95}{9} \div \frac{15}{4} = \frac{19\cancel{95}}{9} \cdot \frac{4}{3\cancel{15}} = \frac{76}{27} = 2\frac{22}{27}$$

$$5\overline{)95}\ 19 \quad -5\downarrow \quad 45$$

$$\overset{3}{19} \times 4 = 76$$

$$27\overline{)76}\ 2r22 \quad -54 \quad 22$$

$$\overset{1}{27} \times 2 = 54$$