DIVIDIENDO FRACCIONES

Dividing Fractions

When dividing fractions, keep the first fraction the same and multiply by the reciprocal of the second fraction.

MÉTODO # 1: RECIPROCO

① Esta fracción se deja igual ~~keep the same~~

$\frac{-2}{5} \div \frac{3}{10}$

~~switch to its reciprocal~~ $\frac{3}{10}$ cambia a $\frac{10}{3}$

③ La segunda fracción se cambia a su Reciproco

② División ~~change~~ se cambia a multiplicación

$$\frac{-2}{5} \div \frac{3}{10} = \frac{-2}{5} \times \frac{10}{3} = \frac{-20}{15} = \frac{-4}{3}$$

Reciproco

Still reduce to lowest terms

Examples: Calculate. Reduce answers to simplest form where possible.

1. $\frac{3}{4} \div -\frac{9}{8} = \frac{3}{4} \times \frac{-8}{9} = \frac{-24}{36} = \frac{-24^{\div 12}}{36_{\div 12}} = \frac{-2}{3}$

2. $1\frac{1}{4} \div (-3) = \frac{5}{4} \div \frac{-3}{1} = \frac{5}{4} \times \frac{-1}{3} = \frac{-5}{12}$

*** remember to change mixed numbers to improper fractions and to write whole numbers as fractions over one.

3. $16 \div \frac{-4}{5} = \frac{16}{1} \times \frac{-5}{4} = \frac{16^{4}}{1} \times \frac{-5}{4_{1}} = \frac{-20}{1} = -20$

MÉTODO # 2: MULTIPLICACIÓN EN X.

Try These!

4. $\frac{-2}{9} \div -\frac{4}{7}$

5. $2\frac{1}{2} \div \frac{25}{14}$

6. $\frac{8}{11} \div -4$

$-\frac{2}{9} \times \frac{4}{7} = -\frac{14 \div 2}{36 \div 2} = -\frac{7}{18}$

① Multiplica numerador con denominador

y denominador con numerador

Answers: . 4. $\frac{7}{18}$ 5. $\frac{7}{5}$ 6. $\frac{-2}{11}$

MÉTODO # 3: C Mayúscula, c Minúscula

Veamos: $\frac{3}{4} \div \frac{7}{8}$

↳ Se escribe arriba

Se escribe abajo.

C mayúscula

$$\frac{3}{4} \times \frac{7}{8}$$

C minúscula

ENTONCES: MULTIPLICACIÓN

- C mayúscula se escribe arriba como numerador

$3 \times 8 \rightarrow 24$

- C minúscula se escribe abajo como denominador

$4 \times 7 \rightarrow 28$

Entonces:

$$\frac{3}{4} \div \frac{7}{8} = \frac{\frac{3}{4}}{\frac{7}{8}} = \frac{24 \div 4}{28 \div 4} = \boxed{\frac{6}{7}}$$

Ejemplos # 2:

$$\frac{6}{5} \div \frac{4}{3}$$

$$\frac{\frac{6}{5}}{\frac{4}{3}} = \frac{6 \times 3}{5 \times 4} = \frac{18}{20}$$

$$\frac{18 \div 2}{20 \div 2} = \frac{9}{10}$$

Siempre simplificas

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$$\frac{5}{6} \div \frac{4}{3}$$

$$\frac{\frac{5}{6}}{\frac{4}{3}} = \frac{5 \times 3}{6 \times 4} = \frac{15}{24}$$

$$\frac{15 \div 3}{24 \div 3} = \frac{5}{8}$$