

Importante. $a \div b = a \cdot \frac{1}{b}$.

Si b es una fracción, multiplicamos por el recíproco de la fracción.

Idea. El recíproco de $\frac{a}{b}$ es $\frac{b}{a}$. (se invierte).

Problemas (personal)

$$4.16) \quad \frac{3}{7} \div 2 = \frac{3}{7} \cdot \frac{1}{2} = \boxed{\frac{3}{14}}$$

$$4.17) \quad (a) \quad \frac{2}{3} \dots \left(\frac{2}{3}\right)^{-1} = \boxed{\frac{3}{2}}$$

$$(b) \quad \boxed{\frac{b}{a}}$$

$$4.18) \quad 3 \div \frac{5}{8} = 3 \cdot \frac{8}{5} = \boxed{\frac{24}{5}}$$

$$4.19) \quad \frac{2}{7} \div \frac{4}{5} = \frac{2}{7} \cdot \frac{5}{4} = \boxed{\frac{10}{63}}$$

$$4.20) \quad \frac{14/3}{-2/9} = \frac{14}{3} \div -\frac{2}{9} = \frac{14}{3} \cdot \left(\frac{9}{2}\right) = \boxed{-21}$$

$$4.21) \quad \frac{2}{5} \cdot ? = 32$$

$$32 = 2^5$$

$$? \rightarrow 2^4 \cdot 5$$

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

$$2^4 \cdot 5 = \boxed{80}$$

$$4.22) \quad \frac{20}{3} \cdot x = 60$$

$$x = 3 \cdot 3 = \boxed{9}$$

Ejercicios

$$4.3.1) \quad (a) \quad \frac{3}{5} \div 2 = \frac{3}{5} \cdot \frac{1}{2} = \boxed{\frac{3}{10}}$$

$$(b) \quad 7 \div \frac{7}{8} = 7 \cdot \frac{8}{7} = \boxed{8}$$

$$(c) \quad \frac{14/3}{5/4} = \frac{14}{3} \div \frac{5}{4} = \frac{14}{3} \cdot \frac{4}{5} = \boxed{\frac{56}{15}}$$

$$(d) \quad \left(-\frac{5}{6}\right) \div \left(-\frac{12}{7}\right) = \frac{5}{6} \cdot \frac{7}{12} = \boxed{\frac{35}{72}}$$

$$4.3.2) \quad \frac{3}{7} \div \frac{7}{3} = \frac{3}{7} \cdot \frac{3}{7} = \boxed{\frac{9}{49}}$$

4.3.3) $x = \frac{3}{4}$ $36 \div \frac{3}{4} = \overset{12}{\cancel{36}} \cdot \frac{4}{\cancel{3}} = 48$

4.3.4) (a) $\frac{2}{3} \cdot x = 40$
 $x = 3 \cdot 20$
 $x = 60$

(b) $\frac{9}{5} = \frac{2}{3} \cdot x$
 $x = \frac{27}{2 \cdot 5} = \frac{27}{10}$

4.3.5)

(a) $\frac{6}{7} \div x = \frac{3}{7}$

$\frac{6}{7} \cdot \frac{a}{6} = \frac{3}{7}$

$\frac{a}{6} = \frac{1}{2}$

$x = 2$

(b) $\frac{6}{7} \div x = \frac{6}{5}$

$\frac{6}{7} \cdot \frac{a}{6} = \frac{6}{5}$

$\frac{a}{6} = \frac{7}{5}$

$x = \frac{5}{7}$

(c) $\frac{6}{7} \div x = \frac{2}{3}$

$x = \frac{9}{7}$

$\frac{6}{7} \cdot \frac{a}{6} = \frac{2}{3}$

$\frac{a}{6} = \frac{7}{3 \cdot 3} = \frac{7}{9}$

4.3.6)

$$x \div \frac{3}{5} = 20$$

$$x \cdot \frac{5}{3} = 20$$

$$x = \frac{3 \cdot 20}{5} = \boxed{12}$$

4.3.7)

$$\begin{aligned} \left(x \cdot \frac{3}{4}\right) \div \frac{3}{5} &= x \cdot \frac{3}{4} \cdot \frac{5}{3} \\ &= x \cdot \boxed{\frac{5}{4}} \end{aligned}$$

4.3.8)

$$\frac{2}{3} \cdot x = 6$$

$$x = 3 \cdot 3$$

$$x = \boxed{9}$$