

los números que no son enteros tienen dos formas de representarse:

- Fracciones
- Decimales.

## Problemas (Personal)

6.10) 0.2.

$$0.2 = 2 \times 10^{-1} = 2 \times \frac{1}{10} = \frac{2}{10} = \frac{1}{5}$$

6.11)

$$(a) 0.8 = \frac{8}{10} = \frac{4}{5} \quad (b) 0.5 = \frac{1}{2} \quad (c) 0.04 = \frac{4}{100} = \frac{1}{25}$$

$$(d) 0.125 = \frac{125}{1000} = \frac{1}{8} \quad (e) -1.72 = -\frac{172}{100} = -\frac{43}{25}$$

$$(f) 2.5625 = \frac{25625}{10000} = \frac{5125}{2000} = \frac{1025}{400} = \frac{41}{16}$$

$$0.875 = \frac{875}{1000} = \frac{75}{40} = \frac{7}{8}$$

6.12)

$$(a) \frac{1}{2} = 0.5$$

$$(d) \frac{7}{8} = 0.875$$

$$(b) \frac{3}{5} = \frac{6}{10} = 0.6$$

$$(c) \frac{29}{100} = 0.29$$

$$(e) -\frac{11}{20} = -\frac{55}{100} = -0.55$$

$$(f) \frac{19}{32} = \frac{19}{2^5} = \frac{19 \cdot 5^5}{2^5 \cdot 5^5}$$

$$= \frac{19 \cdot 5^5}{10^5} = \frac{3125 \cdot 19}{100,000} = \frac{59375}{100,000} = 0.59375$$

Importante:

$\frac{1}{2} = 0.5$	$\frac{1}{4} = 0.25$	$\frac{1}{6} = 0.1\bar{6}$
$\frac{1}{3} = 0.\bar{3}$	$\frac{1}{5} = 0.2$	$\frac{1}{7} = 0.142857\bar{}$
$\frac{1}{8} = 0.125$	$\frac{1}{9} = 0.\bar{1}$	$\frac{1}{10} = 0.1$

$$6.13) 12.3456 = \frac{123456}{10,000} = \frac{15432}{1250} = \frac{7716}{625}$$

$$\begin{array}{r} 3 \\ 25 \\ \times 19 \\ \hline 175 \\ 25 \\ \hline 475 \end{array}$$

$$6.14) 2.5 = \frac{5}{2}, \text{ el recíproco es } \frac{2}{5}, \text{ o } 0.4.$$

## Ejercicios

$$6.3.1) (a) \frac{2}{25} = \frac{8}{100} = 0.08$$

$$(c) -\frac{11}{4} = -\frac{11 \cdot 5^2}{2^2 \cdot 5^2} = \frac{275}{10^2} = -2.75$$

$$(b) \frac{5}{16} = \frac{5 \cdot 5^4}{2^4 \cdot 5^4} = \frac{3125}{10^4} = 0.3125 \quad (d) \frac{81}{1000} = 0.081$$

$$(e) \frac{17}{40} = \frac{17}{10 \cdot 4} = \frac{17}{2 \cdot 5 \cdot 2^2} = \frac{17}{2^3 \cdot 5} \cdot \frac{5^2}{5^2} = \frac{425}{10^3} = 0.425$$

$$(f) \frac{3}{10^4} = 0.0003$$

$$6.3.2) \frac{2}{10} + \frac{4}{100} + \frac{5}{1000} = \frac{200}{1000} + \frac{40}{1000} + \frac{5}{1000} = \frac{245}{1000} = 0.245$$

$$6.3.3) (a) -0.7 = -\frac{7}{10} \quad (b) 0.0138 = \frac{138}{10,000} = \frac{69}{5,000} \quad \frac{69}{5,000}$$

$$(c) 0.375 = \frac{375}{1000} = \frac{15}{40} = \frac{3}{8} \quad (d) 1.11 = \frac{111}{100} \quad \frac{111}{100}$$

$$(e) 0.002 = \frac{2}{1000} = \frac{1}{500} \quad \frac{1}{500} \quad (f) 2.6 = \frac{26}{10} = \frac{13}{5} \quad \frac{13}{5}$$

$$6.3.4) 8 \times .25 \times 2 \times .125 = 8 \times \frac{1}{4} \times 2 \times \frac{1}{8} = \frac{1}{2}$$

$$6.3.5) 3.2 = \frac{32}{10} = \frac{16}{5}, \text{ el recíproco es } \frac{5}{16}.$$

$$6.3.6) 5.75 = \frac{575}{100} = \frac{23}{4} \quad \frac{1}{8} \times m = \frac{23}{4}$$

$$m = \frac{23}{\cancel{4}_1} \times \frac{8^2}{8} = 46$$

$$6.3.7) 3 \cdot \left(\frac{2}{3}\right)^n \quad n \text{ es el número de rebotes.}$$

$$3 \cdot \left(\frac{2}{3}\right)^n < \frac{1}{2} \quad \text{En el quinto (5) rebote.}$$

$$\frac{2^n}{3^{n-1}} < \frac{1}{2} \quad \frac{32}{81} < \frac{1}{2}$$

$$6.3.8) x \div y = 1.0625$$

$$x < 50 \\ y < 50$$

$$x > y$$

$$1.0625 = \frac{10625}{10,000} = \frac{425}{400} = \frac{17}{16}$$

$$\frac{x}{y} = \frac{17}{16}$$

$$\frac{17}{16} \circ \frac{34}{32}$$

$$17+16+34+32 = 99$$