nivelando - resolução

números decimais e dízimas periódicas

01.

a) $2,5 + 7,8 = 10,3$

b) $4,8 + 3,9 = 8,7$

c) $18,7 + 23,3 = 42,0$

d) $2,75 + 8,7 = 11,45$

e) $1,78 + 0,047 = 1,827$

f) $1,0004 + 2,054 = 9,0544$

g) $0,06 + 9,54 = 9,60$

02.

a) $4,5 - 3,7 = 0,8$

b) $7,8 - 6,9 = 0,9$

c) $9,3 - 2,8 = -6,5$

d) $9,2 - 7,8 = 1,4$

e) $4,13 - 1,92 = 2,21$

f) $6,0047 - 2,47 = 3,5347$

g) $31,045 - 19,457 = -27,588$

03.

a) $5,6 \times 4 = 22,4$

b) $3,76 \times 3 = 11,28$

c) $4,25 \times 5,2$

$8\,50 + 2125 = 22,100$

d) $7,8 \times 3,41$

$78 + 3120 + 23400 = 26,598$

e) $45,125 \times 256$

$$270150$$
$$225625$$
$$+\ 90250$$
$$11\,552\,000$$

04. a) $\frac{7,8}{2} = \frac{78}{20} = 3,9$

78 | 20
-60 | 3,9
180
-180
(0)

b) $\frac{4,25}{4} = \frac{425}{400} = 1,0625$

425 | 400
-400 | 1,0625
2500
-2400
1000
-800
2000
-2000
(0)

c) $\frac{13}{2,5} = \frac{130}{25} = 29,2$

130 | 25
-50 | 29,2
230
-225
50
-50
(0)

d) $\frac{25,25}{2,5} = \frac{2525}{250} = 10,1$

2525 | 250
-250 | 10,1
250
-250
(0)

05.

$$\begin{array}{r} {}^{2}1,32 \\ \times\ \ 7 \\ \hline 9,24 \end{array} \qquad \begin{array}{r} {}^{1}0,{}^{2}26 \\ \times\ \ 4 \\ \hline 1,04 \end{array} \qquad \begin{array}{r} {}^{1}1,{}^{1}22 \\ \times\ 45 \\ \hline 610 \\ +\ 488 \\ \hline 54,90 \end{array} \qquad \begin{array}{r} {}^{1}54,9 \\ +\ 9,24 \\ +\ 1,04 \\ \hline 65,18 \end{array} \qquad \begin{array}{r} {}^{0}\not{1}\not{0}\not{0},{}^{9}\not{9}{}^{9}0 \\ -\ 65,18 \\ \hline 34,82 \end{array}$$

(A)

06.

$$\begin{array}{r} 7,{}^{6}\not{1}{}^{1}0 \\ -\ 5,18 \\ \hline 2,52 \end{array}$$

R/ 2,52 m

07. ${}^{1}{}^{1}{}^{1}23,32$

$$\begin{array}{r} 52,25 \\ \times\ 23,3 \\ \hline 11660 \\ 46640 \\ 466400 \\ 1166000 \\ \hline 1218,4700 \end{array}$$

R/ 1218,47 m^2

08. $F = \frac{24}{3} = 8$ por ano $\quad G = \frac{24}{3} = 12$ por ano

$H = \frac{25}{2,5} = 10$ por ano $\quad M = \frac{15}{1,5} = 10$ por ano

$P = \frac{9}{1,5} = \frac{90}{15} = 6$ por ano

B

09.
$$\begin{array}{r} 22,5 \\ \times\ 2,5 \\ \hline 1125 \\ +\ 450 \\ \hline 56,25 \end{array} \qquad \begin{array}{r} 39,9 \\ \times\ 2,5 \\ \hline 19,95 \\ +\ 798 \\ \hline 99,75 \end{array} \qquad \begin{array}{r} 99,75 \\ -56,25 \\ \hline 43,50 \end{array}$$

C

10.
$$\begin{array}{r} 823 \\ \times\ 2,5 \\ \hline 4115 \\ +\ 1646 \\ \hline 2057,5 \end{array}$$

C

11. a) $0,444\ldots = x \quad (10)$

$4,444\ldots = 10x$

$4 + 0,444\ldots = 10x$

$4 + x = 10x$

$9x = 4$

b) $0,12525 = x \quad (10)$

$1,2525 = 10x$

$1 + \frac{25}{99} = 10x$

$\frac{99 + 25}{99} = 10x$

$0,2525 = y \quad (100)$

$25 + 0,2525\ldots = 100y$

$25 + y = 100y$

$y = \frac{25}{99}$

$x = \frac{4}{9}$

$\frac{124}{990} = x$

c) $0,545454 = x \cdot (100)$

$54,5454\ldots = 100x$

$54 + 0,5454 = 100x$

$54 + x = 100x$

$x = \frac{54}{99}$

d) $0,047747\ldots = x \cdot (100)$

$4,774 = 100x$

$4 + \frac{7}{9} = 100x$

$\frac{36 + 7}{9} = 100x$

$\frac{43}{9} = 100x$

$x = \frac{43}{900}$

12. $0,31212\ldots = x \cdot (10)$

$3 + 0,1212 = 10x$

$3 + \frac{12}{99} = 10x$

$\frac{297 + 12}{99} = 10x$

$\frac{309}{990} = x$ (A)

$x = \frac{103}{330}$

13. $\frac{3}{9} + \frac{7}{9} = \frac{10}{9}$ (D)

14. $\frac{\pi x^2}{\pi R^2} = \left(\frac{x}{R}\right)^2$

$\downarrow$

$\left(\frac{8}{15}\right)^2 =$

$tg\,\alpha = \frac{x}{R}$

$tg\,\alpha = \frac{8}{15}$

$0,533\ldots = x \cdot (10)$

$5 + 0,33\ldots = 10x$

$5 + \frac{3}{9} = 10x$

$\frac{45 + 3}{9} = 10x$

$\left(\frac{15}{}\right)$

$= \frac{64}{225}$

(C)

9

$x = \frac{48}{90} = \frac{16}{30} = \frac{8}{15}$

15. a) $\begin{array}{r} 0999\ 9\ 6 \\ 1000 \\ -\ \ 0,01 \\ \hline 999,99 \end{array}$

b) $\frac{0,01}{1000} = \frac{10^{-2}}{10^{3}} = 10^{-5} = 0,00001$

c) $\frac{1000}{0,01} = \frac{1000}{\frac{1}{100}} = 100000$

d) $1000 \cdot 0,01 = 10$

e) $\begin{array}{r} 1000 \\ +\ \ 0,01 \\ \hline 1000,01 \end{array}$