

1.

$$1.1 \quad \frac{5}{2} = 2,5; \quad \frac{4}{3} = 1, (3); \quad \frac{5}{6} = 0,8(3); \quad \frac{8}{3} = 2, (6); \quad \frac{14}{5} = 2,8$$

1.2 Dizimas finitas

$$\frac{5}{2} = 2,5 \rightarrow \text{comprimento 1}$$

$$4,18 \rightarrow \text{comprimento 2}$$

$$1,125 \rightarrow \text{comprimento 3}$$

$$\frac{14}{5} = 2,8 \rightarrow \text{comprimento 1}$$

Dízimas infinitas

$$\frac{4}{3} = 1, (3) \rightarrow \text{período 3}$$

$$\frac{5}{6} = 0,8(3) \rightarrow \text{período 3}$$

$$\frac{8}{3} = 2, (6) \rightarrow \text{período 6}$$

$$0, (42) \rightarrow \text{período 42}$$

$$2, (13) \rightarrow \text{período 13}$$

$$1.3 \quad 0, (42) < \frac{5}{6} < 1,125 < \frac{4}{3} < 2, (13) < \frac{5}{2} < \frac{8}{3} < \frac{14}{5} < 4,18$$

2.

$$2.1 \quad \frac{3}{5} - \frac{3}{2} = \frac{6}{10} - \frac{15}{10} = -\frac{9}{10}$$

$$2.2 \quad \frac{3}{4} \times \left(-\frac{7}{2}\right) = -\frac{21}{8}$$

3.

$$3.1 \quad \frac{61}{15}$$

$$3.2 \quad -\frac{22}{15}$$

$$3.3 \quad \frac{35}{3}$$

$$3.4 \quad \frac{27}{8}$$

$$3.5 \quad \frac{3}{2}$$

4.

$$4.1 \quad <$$

$$4.2 \quad =$$

$$4.3 \quad <$$

$$4.4 \quad >$$

5.

5.1 $(-5)^{-3} = \left(-\frac{1}{5}\right)^3$

5.2 $-3^{-8} = -\left(\frac{1}{3}\right)^8$

5.3 $\left(\frac{7}{8}\right)^{-6} = \left(\frac{8}{7}\right)^6$

5.4 $\left(-\frac{1}{6}\right)^{-3} = (-6)^3$

6. Opção [A]

[A] $\left(-\frac{1}{2}\right)^5 = -\frac{1}{32}$

[B] $\left(-\frac{1}{2}\right)^4 = \frac{1}{16}$

[C] $\left(-\frac{1}{2}\right)^0 = 1$

[D] $\left(-\frac{1}{2}\right)^8 = \frac{1}{256}$

7. 8 cm

8.

8.1 $8,468 \times 10^4 = 84\,680$; $4,56 \times 10^2 = 456$ e $0,031 \times 10^3 = 31$

8.2 $743\,200 = 7,432 \times 10^5$; $0,031 \times 10^3 = 3,1 \times 10$ e $416 = 4,16 \times 10^2$

9.

9.1 Por exemplo: 35

9.2 Por exemplo: 0,000 42

9.3 Por exemplo: 90 000

10. $4,95 \times 10^{25}$ moléculas de água.