



# Resoluções das atividades

## Capítulo 4 | Números racionais

### Agora é com você! (página 51)

- 1) a)  $-\frac{2}{4}$   
 b)  $+\frac{1}{8}$   
 c)  $+\frac{10}{3}$   
 d)  $-\frac{16}{2}$

- 2) a)  $\notin$   
 b)  $\in$   
 c)  $\notin$   
 d)  $\in$

### Testando seus conhecimentos (página 55)

- 1) a)  $\frac{1}{9}$   
 b)  $-1$   
 c)  $-3$   
 d)  $\frac{7}{8}$

- 2) a)  $\frac{26}{10} = \frac{13}{5}$   
 b)  $-\frac{85}{10} = -\frac{17}{2}$   
 c)  $-\frac{18}{10} = -\frac{9}{5}$   
 d)  $\frac{625}{100} = \frac{125}{20} = \frac{25}{4}$

- 3) a)  $-\frac{3}{5} = -\frac{6}{10} = -0,6$   
 b)  $-\frac{8}{100} = -0,08$   
 c)  $\frac{3}{8} = \frac{375}{1000} = 0,375$   
 d)  $-\frac{90}{90} = -1$

4) a)  $-0,888... =$   
 $-\frac{08-0}{9} = -\frac{8}{9}$

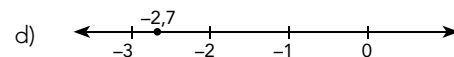
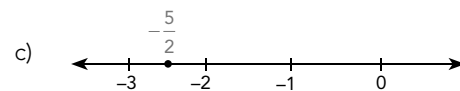
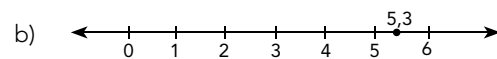
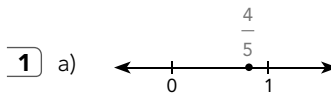
b)  $-2,3\overline{2} =$   
 $-\frac{232-2}{99} = -\frac{230}{99}$

c)  $0,2\overline{6} =$   
 $\frac{026-0}{99} = \frac{26}{99}$

d)  $-0,4\overline{31} =$   
 $-\frac{0431-04}{990} = -\frac{427}{990}$

- 5) a)  $+6; 0$   
 b)  $+6; 0; -6$   
 c)  $-6,0$   
 d)  $+6$   
 e)  $+6; -2,8; 0; -6; +\frac{3}{7}; -\frac{1}{8}$   
 f)  $-2,8; 0; -6; -\frac{1}{8}$   
 g)  $+6; 0; +\frac{3}{7}$

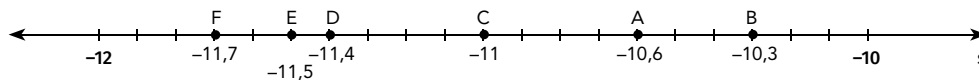
### Testando seus conhecimentos (página 57)



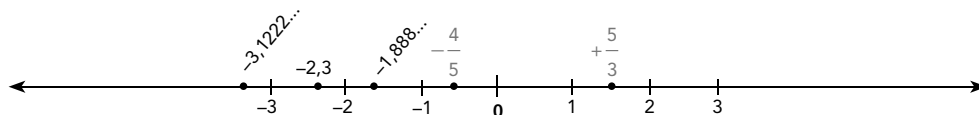
- 2) a)  $\frac{1}{5}$   
 b) 2  
 c) -1  
 d) F  
 e) E



3



4



**Agora é com você! (página 58)**

1

- a)  $-\frac{7}{3}$
- b)  $\frac{81}{225}$
- c)  $-16,34$
- d)  $12,57$

2

- a)  $\frac{3}{17}$
- b)  $\frac{39}{32}$
- c)  $16,3$
- d)  $5,84$

**Testando seus conhecimentos (página 62)**

1

- a) A
- b) P
- c) 2
- d) 2
- e) 2
- f)  $\frac{4}{3}$

2

- a) <
- b) >
- c) <
- d) <
- e) <

3

- a, c, d, g, h

4

- a) >
- b) =
- c) <
- d) >

5

Considerando os números dados, tem-se:

$$-\frac{23}{7} \cong -3,28 \quad -\frac{4}{3} \cong -1,33$$

$$-\frac{33}{10} = -3,3 \quad \frac{1}{10} = 0,1$$



- a)  $\frac{1}{10} > -\frac{4}{3} > -\frac{23}{7} > -\frac{33}{10}$   
 b)  $\frac{1}{10} < \frac{4}{3} < \frac{23}{7} < \frac{33}{10}$   
 c)  $-\frac{1}{10} < \frac{4}{3} < \frac{23}{7} < \frac{33}{10}$

## Atividades propostas (página 64)

1)  $\left(\frac{4}{5}\right)$   $\left(\frac{7}{8}\right)$   $\frac{4}{7}$   $\frac{2}{3}$   $\left(\frac{15}{12}\right)$   $\left(\frac{1}{2}\right)$   $\left(\frac{9}{8}\right)$

2) a)  $\frac{6}{9} = \frac{2}{3}$   
 b)  $\frac{9}{36} = \frac{1}{4}$   
 $\frac{10}{5} = 2$

c)  $\frac{188}{1000} = \frac{94}{500} = \frac{47}{250}$   
 d)  $\frac{123-12}{90} = -\frac{111}{90} = -\frac{37}{30}$

3) a)  $-0,004$   
 b)  $\frac{18}{10} = 1,8$

c)  $-3,333\dots$  ou  $-3,\bar{3}$   
 d)  $\frac{475}{100} = 4,75$

- 4) a)  $\notin$   
 b)  $\in$   
 c)  $\in$   
 d)  $\notin$   
 e)  $\notin$   
 f)  $\in$   
 g)  $\notin$   
 h)  $\notin$

5) a)  $\frac{10}{60}; \frac{20}{60}; -\frac{30}{60}; -\frac{15}{60}; \frac{12}{60}$   
 $-\frac{30}{60} < -\frac{15}{60} < \frac{10}{60} < \frac{12}{60} < \frac{20}{60}$   
 $\left\{ -\frac{1}{2} < -\frac{1}{4} < \frac{1}{6} < \frac{1}{5} < \frac{1}{3} \right\}$

b)  $\frac{7}{3}; -\frac{41}{10}; \frac{94}{10}; \frac{5}{9}$   
 $\frac{210}{90}; -\frac{369}{90}; \frac{846}{90}; \frac{50}{90}$   
 $-4,1 < \left| \frac{5}{9} \right| < \frac{7}{3} < |-9,4|$

- 6) a)  $(-3,3)$  ou  $-5,6$   
 b)  $-7,13$  ou  $(-7,10)$   
 c)  $(0)$  ou  $-0,16$

7)  $\frac{5}{2} > \frac{5}{3} > -\frac{5}{3} > -\frac{5}{2}$   
 Maior =  $\frac{5}{2}$ ; oposto =  $-\frac{5}{2}$

## Mergulhando fundo (página 65)

- 1) a) (V)  
 b) (V)  
 c) (F) Se  $x$  é negativo, então  $0 > x$ .  
 d) (F)  
 e) (V) Não se pode determinar o menor número racional.

2)  $-\frac{1417}{450} = -3,14888\dots$

Logo,  $x = -4$  e  $y = -3$ . Assim:

$$28 \cdot |x + y| = 28 \cdot |(-4) + (-3)| = 28 \cdot |-7| = 28 \cdot 7 = 196$$

3)  $\frac{a}{b} = \frac{\left[ -\frac{69-6}{9} \cdot \left( \frac{9-0}{9} + \sqrt{\frac{9-0}{9}} \right) : \frac{19-1}{9} + \frac{139-13}{9} \right]^{\frac{9-0}{9}}}{49}$   
 $\frac{a}{b} = \frac{\left[ -\frac{63}{9} \cdot \left( \frac{9}{9} + \sqrt{\frac{9}{9}} \right) : \frac{18}{9} + \frac{126}{9} \right]^{\frac{9}{9}}}{49} \rightarrow \frac{a}{b} = \frac{[-7 \cdot (1+1) : 2 + 14]^1}{49}$   
 $\frac{a}{b} = \frac{-7 \cdot 2 : 2 + 14}{49} \rightarrow \frac{a}{b} = \frac{-14 : 2 + 14}{49} \rightarrow \frac{a}{b} = \frac{-7 + 14}{49}$   
 $\frac{a}{b} = \frac{7}{49} \rightarrow \frac{a}{b} = \frac{1}{7} \rightarrow a = 1$  e  $b = 7$

- a)  $1 + 7 = 8$   
 b)  $7 - 1 = 6$   
 c)  $1 \cdot 7 = 7$   
 d)  $7 : 1 = 7$