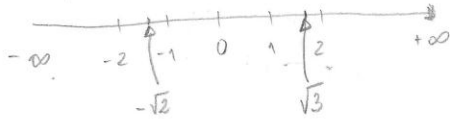


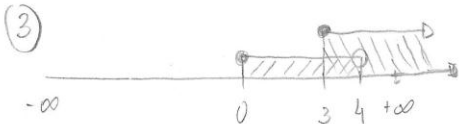
① $]-\sqrt{2}; \sqrt{3}[$



$R: \{-1, 0, 1\}$

② $\sqrt{7} - \sqrt{17} \approx -1,5$

$R: [3e]$ B

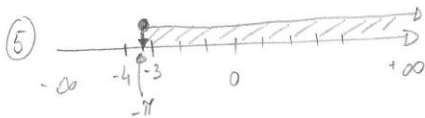


$R: [3; 4[$ C

④ $\sqrt{6,25} = 2,5 \in \mathbb{Q}$

$\sqrt{5} \notin \mathbb{Q}$
 $\pi \notin \mathbb{Q}$
 $\sqrt[3]{125} = 5 \in \mathbb{Q}$

$R: \{\sqrt{6,25}; \sqrt[3]{125}\}$ D

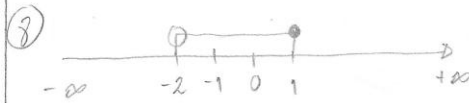


$R: -3$ A

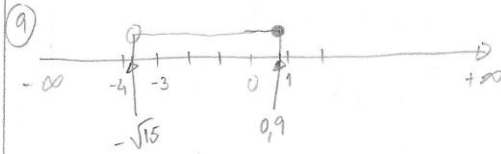


$R:]0, 5[$ A

⑦ $-0,040$ $-0,030$
 $-0,035$ C



$R: \{-1, 0, 1\}$ C



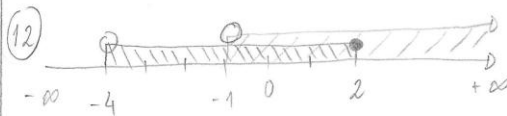
menor inteiro: -3
 maior inteiro: 0

⑩ $-\frac{7}{11} = -0,636363\dots$

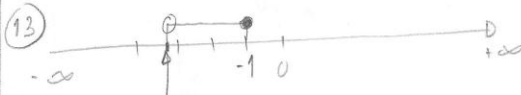
$R: -0,6363$ A

⑪ $3,14 = 3,1400$
 $\pi \approx 3,1415\dots$

$R: 3,1412$ por exemplo



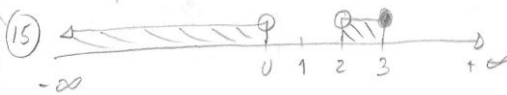
$R:]-1, 2]$ B



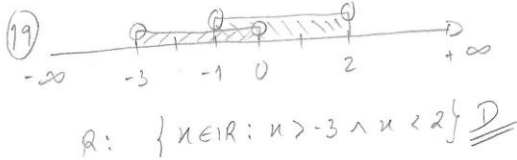
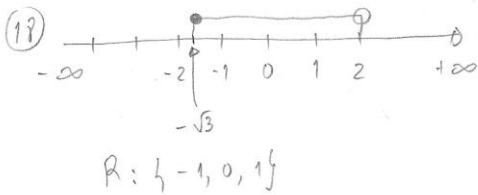
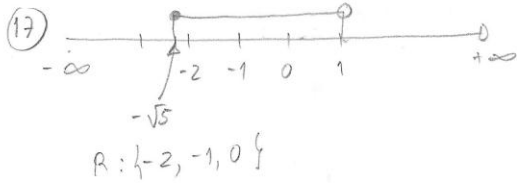
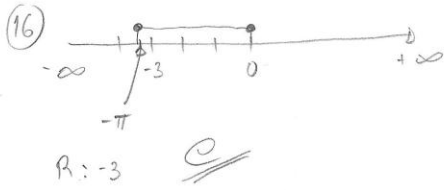
$-\pi \approx -3,1415\dots$

$R: -3,14$ D

⑭ C (porque as dízimas infinitas periódicas são racionais)



$R: 3$ C



20

$$\sqrt[3]{8} = 2$$

$$\sqrt[3]{27} = 3$$

$R: \sqrt{3}; \pi$ D

21

$$\sqrt{5} \approx 2,24 \quad \uparrow \quad 2,50$$

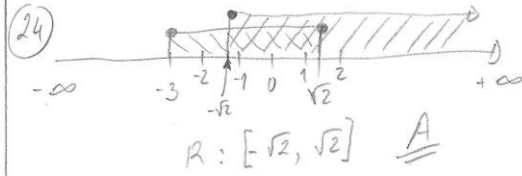
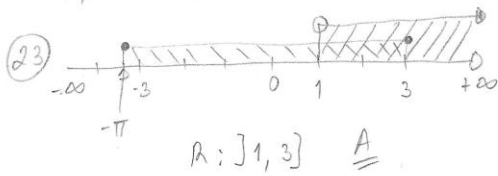
exemplo: $2,30 = 2,3 = \frac{23}{10}$

22

$$\sqrt{25} = 5$$

$$\sqrt{0,25} = 0,5 \quad R: \sqrt{2,5} \quad \underline{\underline{B}}$$

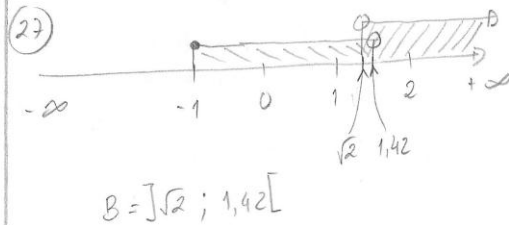
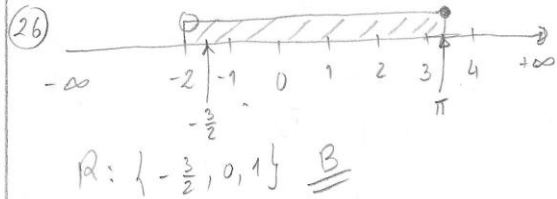
$$\sqrt{0,0025} = 0,05$$



25

$$\sqrt{\frac{1}{4}} = \frac{1}{2}; \sqrt[3]{\frac{1}{64}} = \frac{1}{4}; \sqrt[3]{27} = 3$$

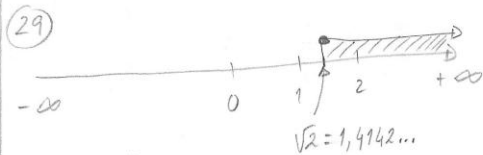
$R: \sqrt{27}$



28

$$\sqrt{5} + \sqrt{7} \approx 4,8818...$$

$R: 4,89$



$$1,4 \times 10^{-2} = 0,014 \notin A$$

$$1,4 \times 10^0 = 1,4 \notin A$$

$$1,4 \times 10^{-1} = 0,14 \notin A$$

$$1,4 \times 10 = 14 \in A$$

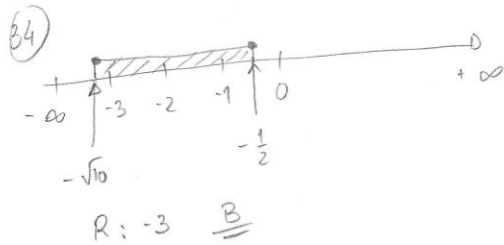
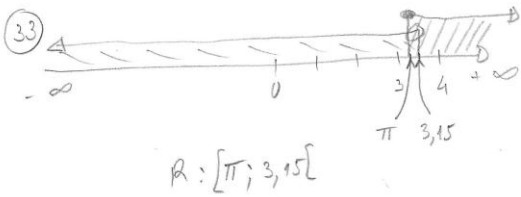
D

30

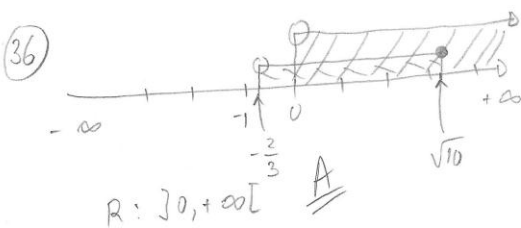
$$-\sqrt{27} \in \pi \quad \underline{\underline{A}}$$

- 31) $-3,5$ digiune finite
 $\frac{1}{7}$ " infinite periodice
 $2,45$ " " "
 $\sqrt{109}$ " " mai periodice

32) $\sqrt{5} = 2,23606... \in]2,23; 2,24[$

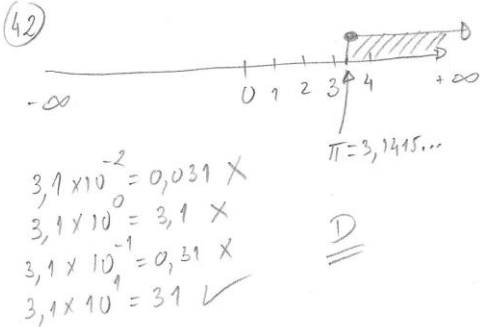
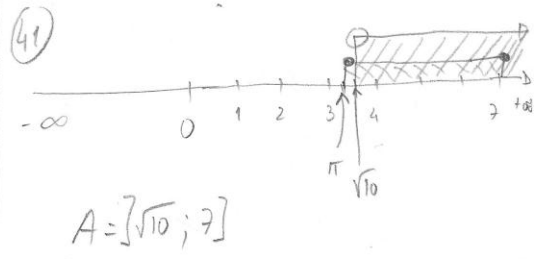
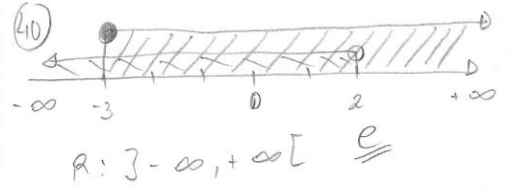
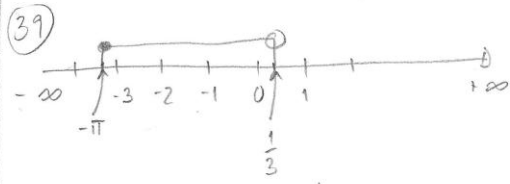
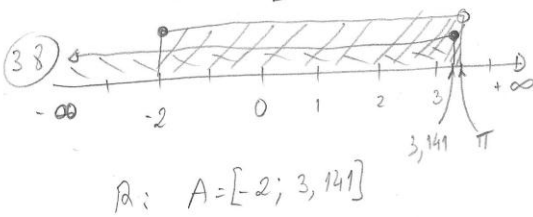


35) (B)

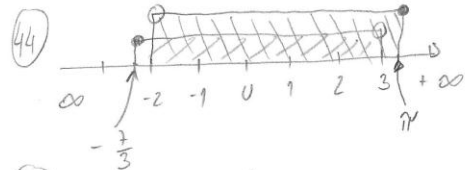


37) $\sqrt{\frac{9}{16}} = \frac{3}{4}; \sqrt{0,16} = 0,4; \frac{1}{16} \in \mathbb{Q}$

$R: \sqrt{1,16}$ D



43) $P = \sqrt{20} + 5 + 5 = 14,4721...$
 Valor aproximado por defecto: 14,4
 " " " exceso: 14,5



44.1) $\{-2, -1, 0, 1, 2\}$

44.2) $[-\frac{7}{3}; \pi]$

(45) ~~(D)~~

$$[-1, 1] \cup \left[-\frac{1}{2}, +\infty\right[= [-1, +\infty[$$

(46) $\pi+1$ ou $\sqrt{10}$ ou $\sqrt{11}$ ou ...

(47)

$$\frac{256}{81} = 3,1604\dots$$

$$\frac{22}{7} = 3,14285\dots$$

$$\sqrt{10} = 3,162277\dots$$

$$3 + \frac{1}{8} = 3,125$$

$$\pi = 3,141592\dots$$

R: $\frac{22}{7}$ (Gregos) B