Resolução comentada Lista 05

01. Note que $A=\{-3,-2,-1,0,1,2\}$, $B=\{0,1,2,3\}$, $C=\{-1,0,1,2,3,4\}$ e $D=\{3,4,5,6,7,8\}$.

a) $A\cup B=\{-3,-2,-1,0,1,2\}\cup\{0,1,2,3\}=\{-3,-2,-1,0,1,2,3\}$

b) $A\cap B=\{-3,-2,-1,0,1,2\}\cap\{0,1,2,3\}=\{0,1,2\}$

c) $A\cup D=\{-3,-2,-1,0,1,2\}\cup\{3,4,5,6,7,8\}=\{-3,-2,-1,0,1,2,3,4,5,6,7,8\}$

d) $A\cap D=\{-3,-2,-1,0,1,2\}\cap\{3,4,5,6,7,8\}=\{\ \}$

e) $A\cup B\cup D=\{-3,-2,-1,0,1,2\}\cup\{0,1,2,3\}\cup\{3,4,5,6,7,8\}=\{-3,-2,-1,0,1,2,3,4,5,6,7,8\}$

f) $A\cap B\cap C=\{-3,-2,-1,0,1,2\}\cap\{0,1,2,3\}\cap\{-1,0,1,2,3,4\}=\{0,1,2\}$

02.

a) $F-E=\{1,2,3,4,6,8,9\}-\{3,4,6,8\}=\{1,2,9\}$

b) $G-E=\{4,5,6,7,8\}-\{3,4,6,8\}=\{5,7\}$

c) $E\cup G=\{3,4,6,8\}\cup\{4,5,6,7,8\}=\{3,4,5,6,7,8\}$

$(E\cup G)-F=\{3,4,5,6,7,8\}-\{1,2,3,4,6,8,9\}=\{5,7\}$

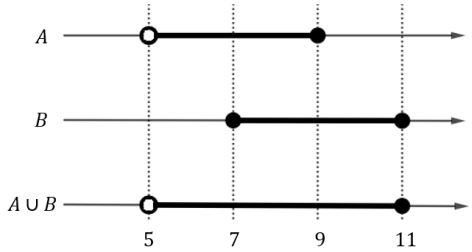
d) $F-G=\{1,2,3,4,6,8,9\}-\{4,5,6,7,8\}=\{1,2,3,9\}$

$G-F=\{4,5,6,7,8\}-\{1,2,3,4,6,8,9\}=\{5,7\}$

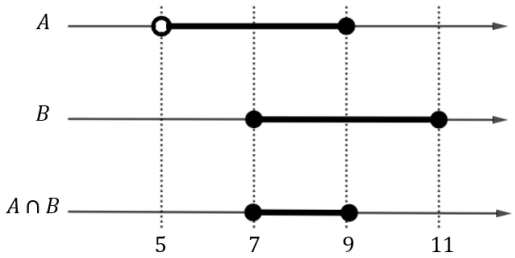
$(F-G)\cup(G-F)=\{1,2,3,9\}\cup\{5,7\}=\{1,2,3,5,7,9\}$

03.

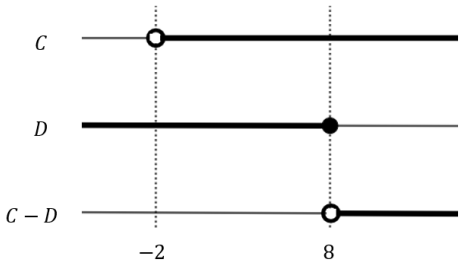
a) $A\cup B=]5,11]$



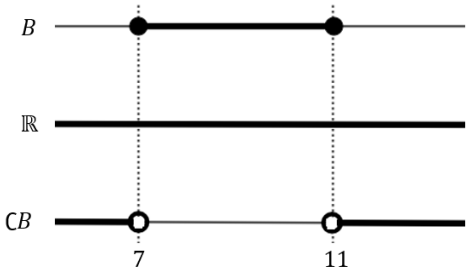
b) $A\cap B=[7,9]$



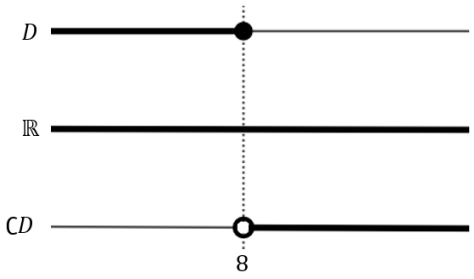
c) $C - D =]8, +\infty[$



d) O complementar de B é $]-\infty, 7[\cup]11, +\infty[$

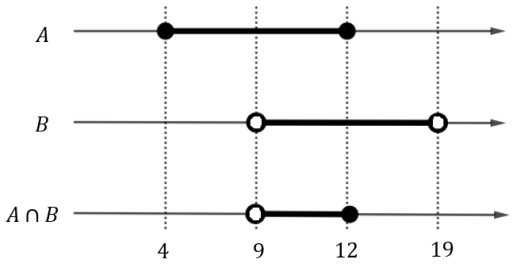


e) O complementar de D é $]8, +\infty[$

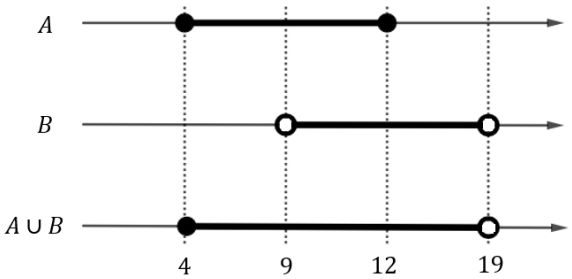


04.

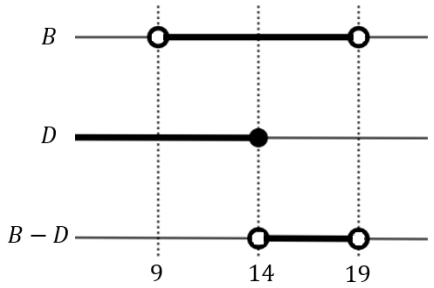
a) $A \cap B =]9,12]$



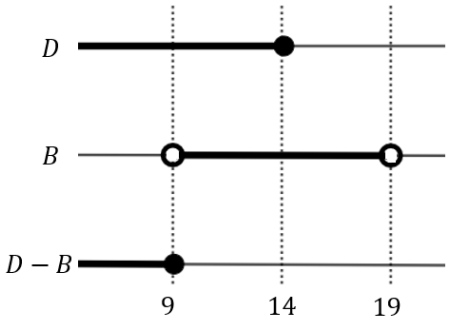
b) $A \cup B = [4,19[$



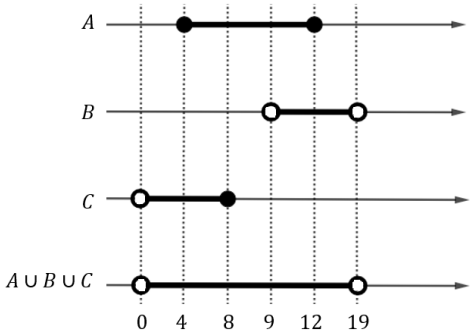
c) $B-D=]14,19[$



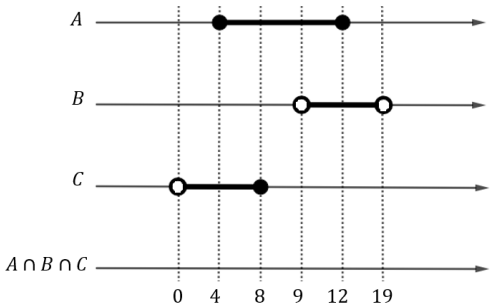
d) $D-B=]-\infty,9]$



e) $A\cup B\cup C=]0,19[$



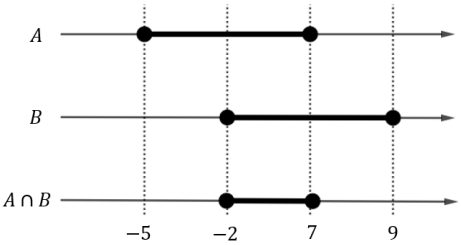
f) $A\cap B\cap C=\{\ \}$`



05.

a) O comprimento do intervalo $[-5,-3]$ é $-3-(-5)=-3+5=2$.

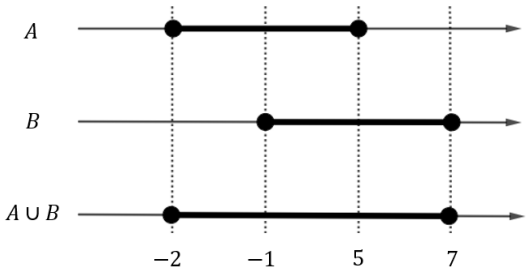
b) O comprimento do intervalo $A\cap B=[-2,7]$ é $7-(-2)=7+2=9$.



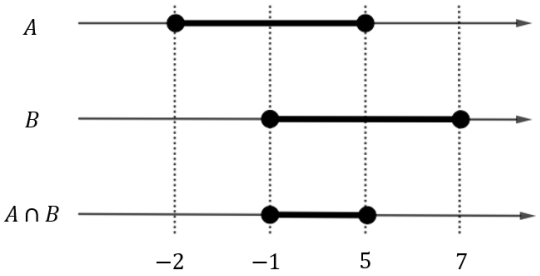
Resolução comentada Lista 06

01.

a) $A \cup B = [-2, 7]$

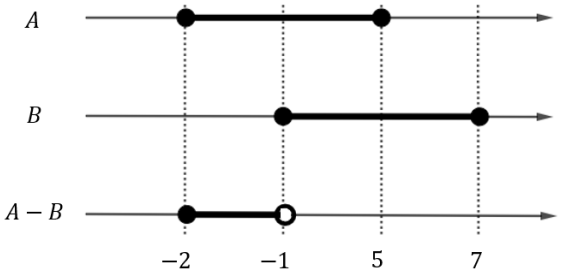


b) $A \cap B = [-1, 5]$

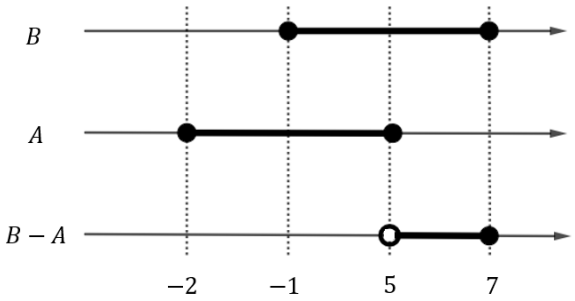


02.

a) $A - B = [-2, -1[$

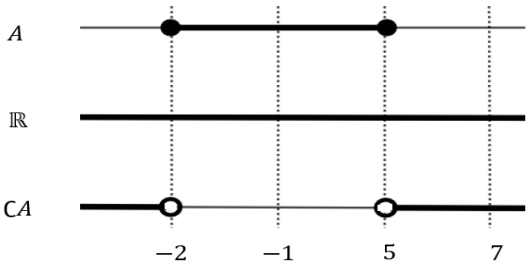


b) $B - A =]5, 7]$

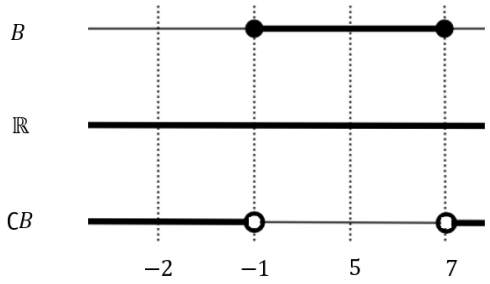


03.

a) O complementar de A é $]-\infty, -2[\cup]5, +\infty[$.



b) O complementar de B é $]-\infty,-1[\cup]7,+\infty[$.



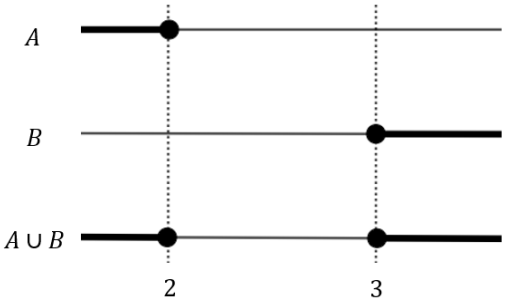
04.

a) O comprimento do intervalo $A=[-2,5]$ é $5-(-2)=5+2=7$.

b) O comprimento do intervalo $B=[-1,7]$ é $7-(-1)=7+1=8$.

05.

a) $A\cup B=]-\infty,2]\cup[3,+\infty[$.



b) $A\cap B=\{\ \}$.