

ESCOLA SUPERIOR DE AGRICULTURA “LUIZ DE QUEIROZ”  
UNIVERSIDADE DE SÃO PAULO  
DEPARTAMENTO DE CIÊNCIAS EXATAS  
LCE0130 - CÁLCULO DIFERENCIAL E INTEGRAL

**RESPOSTAS - LISTA 1**

1- a)  $S = \{x \in \mathbb{R} | x > -\frac{9}{4}\} = (-2.25, +\infty)$

b)  $S = \{x \in \mathbb{R} | x \leq -3\} = (-\infty, -3]$

c)  $S = \{x \in \mathbb{R} | x < 1\} = (-\infty, 1)$

d)  $S = \{x \in \mathbb{R} | -\frac{6}{5} < x \leq -\frac{4}{5}\} = (-1.2, -0.8]$

e)  $S = \{x \in \mathbb{R} | -\frac{7}{3} < x \leq \frac{1}{3}\} = (-2.33, 0.33]$

f)  $S = \{x \in \mathbb{R} | x < -\sqrt{10} \text{ ou } x > \sqrt{10}\} = (-\infty, -3.1623) \cup (3.1623, \infty)$

g)  $S = \{x \in \mathbb{R} | x < -2 \text{ ou } x > 4\} = (-\infty, -2) \cup (4, +\infty)$

h)  $S = \left\{x \in \mathbb{R} | \frac{-1-\sqrt{33}}{8} \leq x \leq \frac{-1+\sqrt{33}}{8}\right\} = [-0.8431, 0.5931]$

i)  $S = \{x \in \mathbb{R} | 2 < x < 3\} = (2, 3)$

j)  $S = \{x \in \mathbb{R} | x < -2 \text{ ou } x > 7\} = (-\infty, -2) \cup (7, +\infty)$

2- a)  $D(P_1, P_2) = \sqrt{164} \simeq 12,8062$

b)  $D(P_1, P_2) = \sqrt{153} \simeq 12,3693$

c)  $D(P_1, P_2) = \sqrt{196} = 14$

d)  $D(P_1, P_2) = \sqrt{x_1^2}$

3- a) Eq. da reta:  $-x + 2y + 1 = 0$  ou  $y = \frac{x-1}{2}$

Intercepto x:  $(1,0)$

Intercepto y:  $(0, -\frac{1}{2})$

b) Eq. da reta:  $-2x + y - 1 = 0$  ou  $y = 2x + 1$

Intercepto x:  $(-\frac{1}{2}, 0)$

Intercepto y:  $(0,1)$

c) Eq. da reta:  $-x + 5y - 20 = 0$  ou  $y = \frac{x + 20}{5}$

Intercepto x:  $(-20,0)$

Intercepto y:  $(0,4)$

d) Eq. da reta:  $y = -x$

Intercepto x e y:  $(0,0)$

e) Eq. da reta:  $2 - 4x + 2y = 0$  ou  $y = 2x - 1$

Intercepto x:  $(\frac{1}{2}, 0)$

Intercepto y:  $(0,-1)$

f) Eq. da reta:  $y = x$

Intercepto x e y:  $(0,0)$