(1) Lista de exercicios Algoritmos Numéricos

1. Sinal * (1+M) * 2^(E - 127)

A) +(1+ 2^-2) * 2^(124-127) = 1,25 * 2^-3 =

 0,15625

=================================
B) +(1+2^-2)* 2^(129-127) = 1,25 * 2^2 = 5

=================================
C) -(1+0,4375) * 2^(126 -127) = -1,4375 * 2^-1

= −0,71875

==================================

2.

A) +(1+0,391601563) * 2^(1030 -1023) =

+1,391601563 * 2^7 = 50,125

=================================
B) -(1+0,22265625)* 2^(1029-1023) =

-1,22265625 * 2^6 = -78,25

==================================

3.

A) r = p + q

r = 133 + 0,921 -> 133,921

p* 133

q* 0,921

r* = 133,921

|r - r*| = 133,921 + 133,921 = 0,000

|r - r*| / |r| = 0

==================================
B)

r = 133 - 0, 499 = 132,501

P* = 133
Q* = 0,500

R* = 133 - 0,500 = 132,500

|r - r*| = |132,501 -   132,500| = 0,100

|r - r*| / |r| = 0,000754711 = 0

==================================