Exercise 1

S-curve for s = 0.1, 0.2, ....0.9, for the following values of r and b;

1. r=3 and b=10:

s = 0.1, r = 3 b = 10, result: 0.009955120

s = 0.2, r = 3 b = 10, result: 0.077180588

s = 0.3, r = 3 b = 10, result: 0.239448893

s = 0.4, r = 3 b = 10, result: 0.483870732

s = 0.5, r = 3 b = 10, result: 0.736924424

s = 0.6, r = 3 b = 10, result: 0.912267475

s = 0.7, r = 3 b = 10, result: 0.985015105

s = 0.8, r = 3 b = 10, result: 0.999234054

s = 0.9, r = 3 b = 10, result: 0.999997864

1. r=6 and b=20:

s = 0.1, r = 6 b = 20, result: 0.000020000

s = 0.2, r = 6 b = 20, result: 0.001279222

s = 0.3, r = 6 b = 20, result: 0.014479467

s = 0.4, r = 6 b = 20, result: 0.078809323

s = 0.5, r = 6 b = 20, result: 0.270187144

s = 0.6, r = 6 b = 20, result: 0.615414636

s = 0.7, r = 6 b = 20, result: 0.918185997

s = 0.8, r = 6 b = 20, result: 0.997712125

s = 0.9, r = 6 b = 20, result: 0.999999740

1. r=5 and b=50:

s = 0.1, r = 5 b = 50, result: 0.000499878

s = 0.2, r = 5 b = 50, result: 0.015875200

s = 0.3, r = 5 b = 50, result: 0.114539882

s = 0.4, r = 5 b = 50, result: 0.402283952

s = 0.5, r = 5 b = 50, result: 0.795550630

s = 0.6, r = 5 b = 50, result: 0.982533828

s = 0.7, r = 5 b = 50, result: 0.999898996

s = 0.8, r = 5 b = 50, result: 0.999999998

s = 0.9, r = 5 b = 50, result: 1.000000000

Execise 3

The answer is

597621: 6.44404963086598E-4,

41909: 6.426083270463005E-4,

163075: 6.306340327478409E-4,

537039: 6.270366267773812E-4,

384666: 5.489594756449403E-4,

504140: 5.337593497332198E-4,

486980: 5.057137887422511E-4,

605856: 5.008393069991272E-4,

32163: 4.970990441601507E-4,

558791: 4.947284076170892E-4