Q1 (B)(i)

real user sys mai difference?

n=2; function=1; a=1; b=2; c=10,000,000,000;

Please choose a function (Enter a number from 1-4):

Enter a, b, and n

With n = 10000000000 trapezoids, our estimate of the integral from 1.000000 to 2.000000 = 1.737332e-01

Total time taken for execution = 5.474002e+00

n=2; function=2; a=1; b=2; c=10,000,000,000;

Please choose a function (Enter a number from 1-4):

Enter a, b, and n

With n = 10000000000 trapezoids, our estimate of the integral from 1.000000 to 2.000000 = 4.120229e-01

Total time taken for execution = 8.344844e+00

n=2; function=3; a=1; b=2; c=10,000,000,000;

Please choose a function (Enter a number from 1-4):

Enter a, b, and n

With n = 10000000000 trapezoids, our estimate of the integral from 1.000000 to 2.000000 = 1.217182e-02

Total time taken for execution = 3.623678e+01

n=2; function=4; a=1; b=2; c=10,000,000,000;

Please choose a function (Enter a number from 1-4):

Enter a, b, and n

With n = 10000000000 trapezoids, our estimate of the integral from 1.000000 to 2.000000 = 4.753977e-02

Total time taken for execution = 4.477016e+01

n=4; function=1;a=1;b=2;c=10,000,000,000;

Please choose a function (Enter a number from 1-4):

Enter a, b, and n

With n = 10000000000 trapezoids, our estimate of the integral from 1.000000 to 2.000000 = 2.684925e-10

Total time taken for execution = 1.111031e-04

n=4; function=2;a=1;b=2;c=10,000,000,000;

Please choose a function (Enter a number from 1-4):

Enter a, b, and n

With n = 10000000000 trapezoids, our estimate of the integral from 1.000000 to 2.000000 = 8.615502e-10

Total time taken for execution = 1.029968e-04

n=4; function=3;a=1;b=2;c=10,000,000,000;

Please choose a function (Enter a number from 1-4):

Enter a, b, and n

With n = 10000000000 trapezoids, our estimate of the integral from 1.000000 to 2.000000 = 3.429723e-11

Total time taken for execution = 1.640320e-04

n=4; function=4;a=1;b=2;c=10,000,000,000;

Please choose a function (Enter a number from 1-4):

Enter a, b, and n

With n = 10000000000 trapezoids, our estimate of the integral from 1.000000 to 2.000000 = 8.795257e-11

Total time taken for execution = 1.139641e-04

n=8; function=1;a=1;b=2;c=10,000,000,000;

Please choose a function (Enter a number from 1-4):

Enter a, b, and n

With n = 10000000000 trapezoids, our estimate of the integral from 1.000000 to 2.000000 = 1.273358e+00

Total time taken for execution = 1.023186e+01

n=8; function=2;a=1;b=2;c=10,000,000,000;

Please choose a function (Enter a number from 1-4):

Enter a, b, and n

With n = 10000000000 trapezoids, our estimate of the integral from 1.000000 to 2.000000 = 2.941172e+00

Total time taken for execution = 1.557340e+01

n=8; function=3;a=1;b=2;c=10,000,000,000;

Please choose a function (Enter a number from 1-4):

Enter a, b, and n

With n = 10000000000 trapezoids, our estimate of the integral from 1.000000 to 2.000000 = 8.605769e-02

Total time taken for execution = 7.089132e+01

n=8; function=4;a=1;b=2;c=10,000,000,000;

Please choose a function (Enter a number from 1-4):

Enter a, b, and n

With n = 10000000000 trapezoids, our estimate of the integral from 1.000000 to 2.000000 = 3.401591e-01

Total time taken for execution = 8.684095e+01

n=16; function=1;a=1;b=2;c=10,000,000,000;

Please choose a function (Enter a number from 1-4):

Enter a, b, and n

With n = 10000000000 trapezoids, our estimate of the integral from 1.000000 to 2.000000 = 1.179116e+00

Total time taken for execution = 8.897115e+00

n=16; function=2;a=1;b=2;c=10,000,000,000;

Please choose a function (Enter a number from 1-4):

Enter a, b, and n

With n = 10000000000 trapezoids, our estimate of the integral from 1.000000 to 2.000000 = 2.833602e+00

Total time taken for execution = 1.630831e+01

n=16; function=3;a=1;b=2;c=10,000,000,000;

Please choose a function (Enter a number from 1-4):

Enter a, b, and n

With n = 10000000000 trapezoids, our estimate of the integral from 1.000000 to 2.000000 = 8.618758e-02

Total time taken for execution = 5.762547e+01

n=16; function=4;a=1;b=2;c=10,000,000,000;

Please choose a function (Enter a number from 1-4):

Enter a, b, and n

With n = 10000000000 trapezoids, our estimate of the integral from 1.000000 to 2.000000 = 3.235714e-01

Total time taken for execution = 6.988533e+01

Q1(B)(ii)

n=2; function=1; a=1; b=2; c=10,000,000,000;

Please choose a function (Enter a number from 1-4):

Enter a, b, and n

np=2

With n = 10000000000 trapezoids, our estimate

of the integral from 1.000000 to 2.000000 = 1.737332e-01

Total time taken for execution = 5.485311e+00

n=2; function=2; a=1; b=2; c=10,000,000,000;

Please choose a function (Enter a number from 1-4):

Enter a, b, and n

np=2

With n = 10000000000 trapezoids, our estimate

of the integral from 1.000000 to 2.000000 = 4.120229e-01

Total time taken for execution = 8.760639e+00

n=2; function=3; a=1; b=2; c=10,000,000,000;

Please choose a function (Enter a number from 1-4):

Enter a, b, and n

np=2

With n = 10000000000 trapezoids, our estimate

of the integral from 1.000000 to 2.000000 = 1.217182e-02

Total time taken for execution = 3.808853e+01

n=2; function=4; a=1; b=2; c=10,000,000,000;

Please choose a function (Enter a number from 1-4):

Enter a, b, and n

np=2

With n = 10000000000 trapezoids, our estimate

of the integral from 1.000000 to 2.000000 = 4.753977e-02

Total time taken for execution = 4.489929e+01

n=4; function=1; a=1; b=2; c=10,000,000,000;

Please choose a function (Enter a number from 1-4):

Enter a, b, and n

np=4

With n = 10000000000 trapezoids, our estimate

of the integral from 1.000000 to 2.000000 = 2.684925e-10

Total time taken for execution = 1.370907e-04

n=4; function=2; a=1; b=2; c=10,000,000,000;

Please choose a function (Enter a number from 1-4):

Enter a, b, and n

np=4

With n = 10000000000 trapezoids, our estimate

of the integral from 1.000000 to 2.000000 = 8.615502e-10

Total time taken for execution = 7.295609e-05

n=4; function=3; a=1; b=2; c=10,000,000,000;

Please choose a function (Enter a number from 1-4):

Enter a, b, and n

np=4

With n = 10000000000 trapezoids, our estimate

of the integral from 1.000000 to 2.000000 = 3.429723e-11

Total time taken for execution = 1.149178e-04

n=4; function=4; a=1; b=2; c=10,000,000,000;

Please choose a function (Enter a number from 1-4):

Enter a, b, and n

np=4

With n = 10000000000 trapezoids, our estimate

of the integral from 1.000000 to 2.000000 = 8.795257e-11

Total time taken for execution = 1.111031e-04

n=8; function=1; a=1; b=2; c=10,000,000,000;

Please choose a function (Enter a number from 1-4):

Enter a, b, and n

np=8

With n = 10000000000 trapezoids, our estimate

of the integral from 1.000000 to 2.000000 = 1.273358e+00

Total time taken for execution = 1.023100e+01

n=8; function=2; a=1; b=2; c=10,000,000,000;

Please choose a function (Enter a number from 1-4):

Enter a, b, and n

np=8

With n = 10000000000 trapezoids, our estimate

of the integral from 1.000000 to 2.000000 = 2.941172e+00

Total time taken for execution = 1.649330e+01

n=8; function=3; a=1; b=2; c=10,000,000,000;

Please choose a function (Enter a number from 1-4):

Enter a, b, and n

np=8

With n = 10000000000 trapezoids, our estimate

of the integral from 1.000000 to 2.000000 = 8.605769e-02

Total time taken for execution = 7.029325e+01

n=8; function=4; a=1; b=2; c=10,000,000,000;

Please choose a function (Enter a number from 1-4):

Enter a, b, and n

np=8

With n = 10000000000 trapezoids, our estimate

of the integral from 1.000000 to 2.000000 = 3.401591e-01

Total time taken for execution = 1.038114e+02

n=16; function=1; a=1; b=2; c=10,000,000,000;

Please choose a function (Enter a number from 1-4):

Enter a, b, and n

np=16

With n = 10000000000 trapezoids, our estimate

of the integral from 1.000000 to 2.000000 = 1.179116e+00

Total time taken for execution = 8.897684e+00

n=16; function=2; a=1; b=2; c=10,000,000,000;

Please choose a function (Enter a number from 1-4):

Enter a, b, and n

np=16

With n = 10000000000 trapezoids, our estimate

of the integral from 1.000000 to 2.000000 = 2.833602e+00

Total time taken for execution = 1.630011e+01

n=16; function=3; a=1; b=2; c=10,000,000,000;

Please choose a function (Enter a number from 1-4):

Enter a, b, and n

np=16

With n = 10000000000 trapezoids, our estimate

of the integral from 1.000000 to 2.000000 = 8.618758e-02

Total time taken for execution = 5.841099e+01

n=16; function=4; a=1; b=2; c=10,000,000,000;

Please choose a function (Enter a number from 1-4):

Enter a, b, and n

np=16

With n = 10000000000 trapezoids, our estimate

of the integral from 1.000000 to 2.000000 = 3.235714e-01

Total time taken for execution = 7.375865e+01

Q1 (c)

Q2(a)(i)

Number of flips performed by each processor = 25

Percentage of flips turning in head = 46.000000

Percentage of flips turning in tail = 54.000004

Total time elapsed = 3.099442e-05

Number of flips performed by each processor = 250

Percentage of flips turning in head = 51.099998

Percentage of flips turning in tail = 48.899998

Total time elapsed = 3.099442e-05

Number of flips performed by each processor = 2500

Percentage of flips turning in head = 49.619999

Percentage of flips turning in tail = 50.379997

Total time elapsed = 8.106232e-05

Number of flips performed by each processor = 25000

Percentage of flips turning in head = 50.291000

Percentage of flips turning in tail = 49.709000

Total time elapsed = 5.660057e-04

Number of flips performed by each processor = 250000

Percentage of flips turning in head = 50.023300

Percentage of flips turning in tail = 49.976700

Total time elapsed = 5.455971e-03

Number of flips performed by each processor = 2500000

Percentage of flips turning in head = 50.026722

Percentage of flips turning in tail = 49.973278

Total time elapsed = 5.442500e-02

Number of flips performed by each processor = 25000000

Percentage of flips turning in head = 50.007050

Percentage of flips turning in tail = 49.992950

Total time elapsed = 5.432761e-01

Number of flips performed by each processor = 250000000

Percentage of flips turning in head = 50.001472

Percentage of flips turning in tail = 49.998524

Total time elapsed = 5.435364e+00

Q2 (a)(ii)

Number of flips performed by each processor = 25

Percentage of flips turning in head = 46.000000

Percentage of flips turning in tail = 54.000004

Total time elapsed = 4.816055e-05

Number of flips performed by each processor = 250

Percentage of flips turning in head = 51.099998

Percentage of flips turning in tail = 48.899998

Total time elapsed = 5.888939e-05

Number of flips performed by each processor = 2500

Percentage of flips turning in head = 49.619999

Percentage of flips turning in tail = 50.379997

Total time elapsed = 9.894371e-05

Number of flips performed by each processor = 25000

Percentage of flips turning in head = 50.291000

Percentage of flips turning in tail = 49.709000

Total time elapsed = 5.559921e-04

Number of flips performed by each processor = 250000

Percentage of flips turning in head = 50.023300

Percentage of flips turning in tail = 49.976700

Total time elapsed = 5.303860e-03

Number of flips performed by each processor = 2500000

Percentage of flips turning in head = 50.026722

Percentage of flips turning in tail = 49.973278

Total time elapsed = 5.179381e-02

Number of flips performed by each processor = 25000000

Percentage of flips turning in head = 50.007050

Percentage of flips turning in tail = 49.992950

Total time elapsed = 5.189221e-01

Number of flips performed by each processor = 250000000

Percentage of flips turning in head = 50.001472

Percentage of flips turning in tail = 49.998524

Total time elapsed = 4.962867e+00

Q2(b)(i)