

1.

```
>_ Console x +
Show Only Latest Clear Past Runs
python3 mai... Ask Assistant 345ms • Just now ✓ ▲
Composite Trapezoidal Rule: 0.39614759
Composite Simpson's Rule: 0.38566360
Composite Midpoint Rule: 0.38080480
```

2.

```
>_ Console x +
Show Only Latest Clear Past Runs
python3 mai... Ask Assistant 2s • Just now ✓ ▲
Gaussian Quadrature n=3: 0.19225938
Gaussian Quadrature n=4: 0.19225936
Exact value (scipy.quad): 0.19225936
誤差 (n=3): 1.95e-08
誤差 (n=4): 7.21e-11
```

3.

```
>_ Console x +
Show Only Latest Clear Past Runs
python3 mai... Ask Assistant 746ms • Just now ✓ ▲
Simpson's Rule: 0.51198754
Gaussian Quadrature: 0.51186554
Exact value (dblquad): 0.51184464
誤差 (Simpson): 1.43e-04
誤差 (Gaussian): 2.09e-05
```

4.

```
>_ Console x +
Show Only Latest Clear Past Runs
python3 mai... Ask Assistant 316ms • Just now ✓ ▲
(a)  $\int_0^1 x^{(-1/4)} \sin(x) dx \approx 6.94708410$ 
(b)  $\int_1^\infty x^{(-4)} \sin(x) dx \approx 0.27448162$ 
```