

W03 Stepwise

Due date: Thursday 1/29, 11:59pm

01

☒ Distinct linear factors

Compute the integral:

$$\int \frac{1}{(x+2)(x-3)} dx$$

☑ **Long division first**

Compute the integral:

$$\int \frac{2x^3 + 3x^2 + 7x + 4}{x + 1} dx$$

☑ Repeated factor

Compute the integral:

$$\int \frac{1}{x(x-1)^2} dx$$

 Simpson's Rule

Elapsed Time (min)	0	15	30	45	60	75	90	105	120	135	150	165	180
Temp (°C)	21	21.3	21.5	21.8	21.6	21.2	20.8	20.6	20.9	21.2	21.1	21.3	21.2

The chart above shows a record of ambient temperatures measured each 15 minutes over 3 hours. Compute the approximate average temperature using Simpson's Rule. You may use a calculator to resolve the arithmetic in your final expression.