

11I The Trapezium Rule

1. Using 4 strips, estimate the area under the curve:

$$y = \sqrt{2x + 3}$$

Between the lines $x = 0$ and $x = 2$

2. Using 8 strips, estimate the area under the curve:

$$y = \sqrt{2x + 3}$$

Between the lines $x = 0$ and $x = 2$

3. Complete the table of values and use it to find an estimate for:

$$\int_0^{\frac{\pi}{3}} \sec x \, dx$$

x	0	$\frac{\pi}{12}$	$\frac{\pi}{6}$	$\frac{\pi}{4}$	$\frac{\pi}{3}$
y					

4. Use the trapezium rule with 4 strips to find an approximation for:

$$\int_0^2 x \sin x \, dx$$