

Chapter 11 / Example 12

Definite integrals

Find the area of the region bounded by the curve $y = 3x^2 + \frac{2}{\sqrt{x}}$ the x-axis and the lines $x=1$ and $x=4$.

Press **MENU** 1 **Run-Mat** to display the Run-Matrix screen for arithmetical calculations.

Press **F4** MATH **F6** \triangleright **F1** $\int dx$

You will see an integral template. There are three fields to complete in the template: one for each of the limits and one for the function you are integrating.

Enter the function $3x^2 + \frac{2}{\sqrt{x}}$

Use **□** to select the fraction template.

Enter the lower limit 1 and the upper limit 4.

Press **EXE**.

$$\int_1^4 3x^2 + \frac{2}{\sqrt{x}} dx = 67$$