Section 2: Finding the area under a curve

Section test

1. Find $\int_0^3 (x^2+2)\mathrm{d}x$

2. Find $\int_1^2 (x^3+1)\mathrm{d}x$.

3. Find $\int_{-1}^1 (x+2)^2\mathrm{d}x$.

4. Find $\int_{-2}^1 (x^2+4x)\mathrm{d}x$.

5. Find $\int_0^2 (x^3-3x^2+2x)\mathrm{d}x$.

6. Find the area in square units under the curve $y=x^2+1$ between $x=0$ and $x=2$.

7. Find the area in square units enclosed by the curve $y=4x-x^2$ and the x axis.

8. Find the area in square units enclosed by the curve $y=x^3-x^2-2x$ and the positive x-axis.

9. Find the area in square units enclosed by the curve $y=x^2-1$ and the x-axis.

10. Find the area in square units enclosed by the curve $y=x^2+x-2$ and the lines $y=0$, $x=0$ and $x=2$.