Q1. Find

(a) $\int \dfrac{1}{6x^2} dx$ (b) $\int x^3(x+2)dx$ (c) $\int \dfrac{2x^3+3}{4} dx$
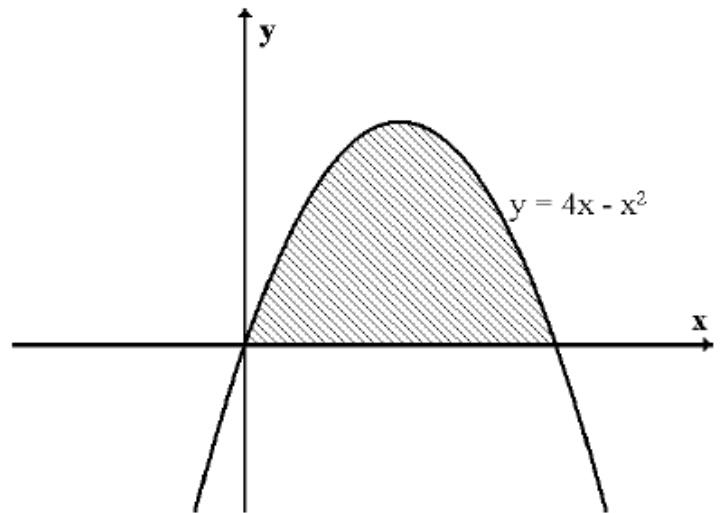
Q2. Evaluate the following:

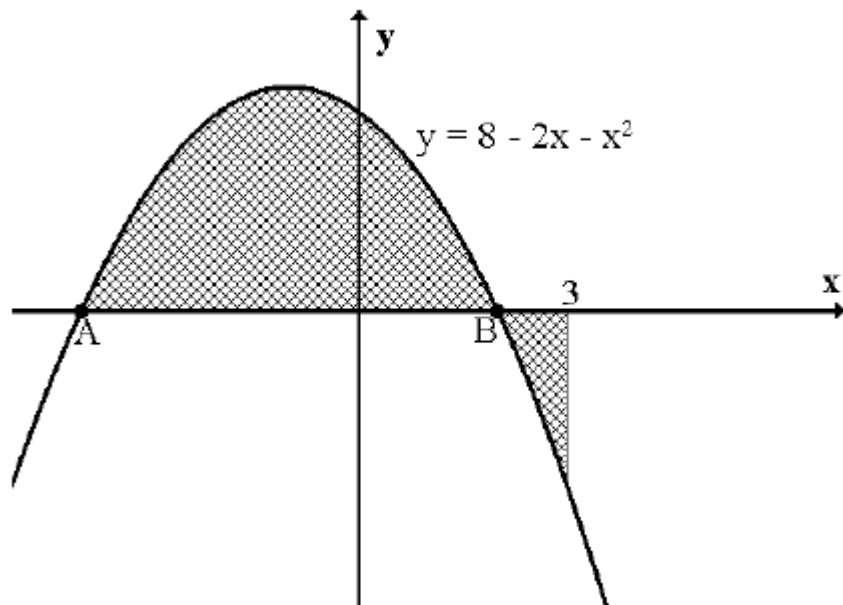(a) $\int_0^3 (3x+2)dx$ (b) $\int_{-1}^5 (3x+4)^2 dx$ (c) $\int_1^{16} \dfrac{\sqrt{x}-4}{\sqrt{x}} dx$

Q3. The diagram shows the graph of

y = 4x – x². Calculate the area

between the curve and the x – axis

$y = 4x - x^2$

Q4. (a) Find the coordinates of A and B

(b)   Calculate the shaded area.

$y = 8 - 2x - x^2$

Q5. If f'(x) = 4x(x – 1)

And f(-1) = 2. Find a formula

for f(x)

Q6. Find the area of the Region enclosed by the given curve $y = 5x - x^2$ and the line $x + y - 8 = 0$

$y = 5x - x^2$

$x + y - 8 = 0$