Evaluate

1. $\displaystyle\int_{-2}^{2}\left(3x^4 - 2x + 1\right)dx$

2. $\displaystyle\int_{0}^{1}\left(4x^{21} - 2x^{16} + 1\right)dx$

Compute the area of the region bounded by the graph of f and the x-*axis* on the given interval.

3. $f(x) = 16 - x^2$ *on* $[-4,\ 4]$

4. $f(x) = x^3 - x$ *on* $[-1,\ 0]$

5. $f(x) = x^2 - x$ *on* $[0,\ 3]$

6. $f(x) = x^4 - x^2$ *on* $[-1,\ 1]$