

**Critical Values**  
**The Closed Interval Method for Absolute Max/Absolute Min**

Determine the critical value(s).

1.  $f(x) = \frac{x+1}{x^2+x+1}$

2.  $f(x) = \sqrt{x}(1-x)$

3.  $f(x) = 4x - \tan(x)$

Determine the **Absolute Max** and **Absolute Min** for the following functions over the indicated interval.

4.  $f(x) = x^3 - 6x^2 + 9x + 2$  over  $[-1,4]$

5.  $f(x) = (x^2 - 1)^3$  over  $[-1,2]$

6.  $f(x) = x - 2\cos(x)$  over  $[-\pi, \pi]$