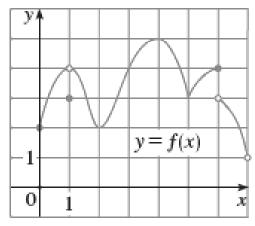
1. From the graph, identify all of the <u>absolute</u> and <u>local</u> maximum and minimum values of the function.



2. Sketch the graph *f* on the given interval. Use your sketch to find the absolute and local maximum and minimum values of *f*.

$$f(t) = \cos(t), \quad -\frac{3\pi}{2} \le t < \pi$$

3. Sketch a graph of a function f(x) which is continuous on [1, 5], which has an absolute maximum at x = 2, an absolute minimum at x = 5, and for which x = 4 is a critical number but neither a local maximum nor local minimum.

4. Find the absolute maximum and minimum values of *f* on the given interval:

 $f(x) = 2x^3 - 3x^2 - 12x + 1, \qquad [-2,3]$

5. Find the absolute maximum and minimum values of f on the given interval:

 $f(x) = x^{-2} \ln x, \qquad [\frac{1}{2}, 4]$

6. Find the critical numbers of the function:

$$h(p) = \frac{p-1}{p^2+4}$$