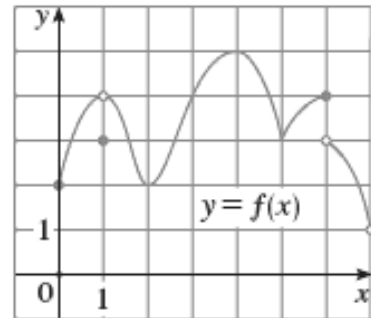1. Use the graph to state the absolute and local maximum and minimum values of the function.

2. Sketch the graph f by hand and use your sketch to find the absolute and local maximum and minimum values of f.

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

3. Sketch a graph of a function f which is continuous on $[1, 5]$, which has an absolute maximum at 2, has an absolute minimum at 5, and for which 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:

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

6. Find the critical numbers of the function:

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