

(1) Draw  $f(x) = -(x - 2)^2 + 2$  for  $x \in [1, 3]$ .

(2) Compute  $f'(x)$ . Draw the tangent line of  $f$  at  $x = 3$ .

(3) Draw  $g(x) = 2\sqrt{x - 4} - 1$  (first compute  $g(4)$  and  $g(5)$ ).

