Derivative at a Point Practice

Compute the derativative of the following functions at the given point. Show all your work.

1. Find the derivative of
$$f(x) = x^2 + 2$$
at 4.

2. Find the derivative of
$$3x^2$$
at 1

3. Find the derivative of

$$\sqrt{x}$$

   at 5

4. Find the derivative of

$$\frac{1}{x}$$

   at 2