

NAME: _____

Let $f(x) = 1 + \sqrt{x}$ and $g(x) = x^2 - 2$

Find:

a) $g(f(4))$

$$= g(3)$$

$$= 3^2 - 2$$

$$= 7$$

b) $g(f(x))$

$$= g(1 + \sqrt{x})$$

$$= (1 + \sqrt{x})^2 - 2$$

$$= 1 + 2\sqrt{x} + \sqrt{x}^2 - 2$$

$$= x + 2\sqrt{x} - 1$$