NAME AND SECTION: $\qquad$
Instructor's Name:

## Quiz 3

1. Consider the function $f(x)=4-x^{2}$ defined on the interval $[1,2]$ as in figure:

and let $g(x)$ be defined as follows

$$
g(x)=\int_{1}^{x} f(t) d t
$$

Shade on the graph a region representing the value $g(x)$.
2. Compute the function $g^{\prime}(x)$ justifying all your steps:
3. Compute the function $g(x)$ justifying all your steps:

