



Graph of $f(x)$

Given: $g(x) = \int_0^x f(t) dt$ Find each of the following:

1. $g(-2)$
2. $g'(-4)$
3. $g(5)$
4. $g''(-4)$
5. $g'(1)$
6. $g'(4)$
7. $g'(-3)$
8. $g''(-1)$
9. $g''(1)$
10. $g''(2)$
11. $g(4)$
12. $g'(-1)$
13. Find the equation of the tangent line to the graph of g at $x = 3$.
14. Determine the interval(s) for which g is increasing/decreasing $-5 < x < 5$.
15. Find the equation of the tangent line to the graph of g at $x = -1$.
16. Let $h(x) = g(x) - x$. Determine the critical values of h on $-5 < x < 5$.
17. Determine the x -coordinate of any points of inflections of g .
18. Let $m(x) = x^2 g(x)$. Find $m'(4)$.