

1) $f(x) = 3x^2 - \sin x + e^x$

NOTE: MODE \rightarrow RADIAN

a) $f(4) = 103.3549$

b) $f(2.85) = 41.3678$

c) $f\left(\frac{\pi}{6}\right) = 2.0106$

2) $f(x) = x^3 - 3x^2 - 24x + 5$

b) $f(-1.5) = 30.875$

c) $f(x) = 0$ @ $x = -3.7519$

$x = 0.2035$

$x = 6.5484$

d) $f(x)$ has a max @ $(-2, 33)$

e) $f(x)$ has a min @ $(4, -75)$

f) $f(0) = 5$

g) $f(x) = g(x)$ @ $x = -3.4856$

$x = 1.861$

$x = 4.6245$

3) a) $f(x) = \sin x + x^2$

$f(x) = 0$ @ $x = -0.8767$

$x = 0$

b) $g(x) = -3 + e^{2x}$

$g(x) = 0$ @ $x = 0.5493$

c) $h(x) = -3 + \ln x$

$h(x) = 0$ @ $x = 20.0855$

4) a) $f(x) = g(x)$ @ $x = 1.4645$

b) $f(x) = g(x)$ @ $x = -1.4168$

$x = 4.665$

5) $f(x)$ has a max @ $(-0.458, -0.726)$
 $(3.733, 10.216)$

$f(x)$ has a min @ $(0.910, -1.7307)$