1. Evaluate the following for $f(x) = \begin{cases} x^2 + 5 & \text{if } x \leq -2 \\ 5x + 6 & \text{if } -2 < x < 4 \\ 2x^3 + 5 & \text{if } x \geq 4 \end{cases}$

$f(4) = 2(4)^3 + 5 = 133$ $f(-1) = 5(-1) + 6 = 1$

2. Use $g(x) = 0.06x^2 - 3x + 146$ to answer the following.

Find the x-value of the vertex using $x = \dfrac{-b}{2a}$

Vertex: $(25, 108.5)$ maximum: none

minimum= 108.5 range: $y \geq 108.5$