Name $\qquad$

1. (5 points) The functions $y=x^{2}-4 x+2$ and $y=2+2 x-x^{2}$ are plotted below. Find the area enclosed by these curves. Please simplify your answer - it should be an integer.

2. (5 points) Set up, but DO NOT EVALUATE, an integral that represents the area enclosed by $y=10-x^{4}$, the tangent line to this graph at the point $(-1,9)$, and the $x$-axis. The relevant functions are plotted below.

