Present neatly ~~on separate paper~~. Justify for full credit. No Calculators.

Name _____ Score _____ 10 minutes

1.

Find an equation of the tangent line to the curve $y = \tan(\pi x^2/4)$ at the point $(1, 1)$.

2.

Let $r(x) = f(g(h(x)))$, where $h(1) = 2, g(2) = 3, h'(1) = 4$, $g'(2) = 5$, and $f'(3) = 6$. Find $r'(1)$.

3.

If $h(x) = \sqrt{4 + 3f(x)}$, where $f(1) = 7$ and $f'(1) = 4$, find $h'(1)$.