On the following problems you **must show your work** to receive full credit.

1. Evaluate $\sin(\sin^{-1}(-\frac{1}{2}) + \cos^{-1}(-\frac{1}{2}))$.

2. Evaluate $\int \frac{dx}{x^2 + 6x + 10}.$

3. Find $\frac{d}{dx}\ln(\sinh x)$.