

## Limit Techniques Practice - 10/14/16

1. Evaluate  $\lim_{x \rightarrow 0} x^3 \cos\left(\frac{1}{x}\right)$ .

2. Evaluate  $\lim_{x \rightarrow 7} \frac{\sqrt{x+2} - 3}{x - 7}$ .

3. Evaluate  $\lim_{x \rightarrow 0} x \arctan\left(\frac{1}{x^2}\right)$ .

4. Evaluate  $\lim_{x \rightarrow 0} \left( \frac{3}{x\sqrt{9-x}} - \frac{1}{x} \right)$ .

5. Evaluate  $\lim_{x \rightarrow 2} \frac{\sqrt{6-x} - 2}{\sqrt{3-x} - 1}$ .