

**For full credit you must show your work. Partial credit may be given for incorrect solutions if sufficient work is shown.**

Apply L'Hopital's Rule where possible to evaluate the following limits.

1. (4 pts)

$$\lim_{x \rightarrow -9} \frac{x + 9}{x^2 + 12x + 27}$$

2. (3 pts)

$$\lim_{x \rightarrow \infty} \frac{e^{3x}}{x^2}$$

3. (3 pts)

$$\lim_{x \rightarrow 5} \frac{x - 5}{(x + 5)^4}$$