

8.7 Indeterminate Forms and L'Hospital's Rule

Name:

Date: July 17, 2015

P 6. Evaluate the limit.

$$\lim_{x \rightarrow -4} \frac{2x^2 + 13x + 20}{x + 4}$$

P 8. Evaluate the limit.

$$\lim_{x \rightarrow 0} \frac{\sin 6x}{4x}$$

P 12. Evaluate the limit.

$$\lim_{x \rightarrow -2} \frac{x^2 - 3x - 10}{x + 2}$$

P 14. Evaluate the limit.

$$\lim_{x \rightarrow 5^-} \frac{\sqrt{25 - x^2}}{x - 5}$$

P 16. Evaluate the limit.

$$\lim_{x \rightarrow 1} \frac{\ln x^3}{x^2 - 1}$$

P 22. Evaluate the limit.

$$\lim_{x \rightarrow 1} \frac{\arctan x - (\pi/4)}{x - 1}$$

P 24. Evaluate the limit.

$$\lim_{x \rightarrow \infty} \frac{5x + 3}{x^3 - 6x + 2}$$

P 26. Evaluate the limit.

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

P 28. Evaluate the limit.

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

P 42. Evaluate the limit.

$$\lim_{x \rightarrow 1^+} \frac{\int_1^x \cos \theta \, d\theta}{x - 1}$$

P 44. Evaluate the limit.

$$\lim_{x \rightarrow 0^+} x^3 \cot x$$

P 48. Evaluate the limit.

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

P 54. Evaluate the limit.

$$\lim_{x \rightarrow 4^+} [3(x - 4)]^{x-4}$$

P 57. Evaluate the limit.

$$\lim_{x \rightarrow 2^+} \left(\frac{8}{x^2 - 4} - \frac{x}{x - 2} \right)$$

P 60. Evaluate the limit.

$$\lim_{x \rightarrow 0^+} \left(\frac{10}{x} - \frac{3}{x^2} \right)$$