

**CH.8 WS #2 Integration by Parts / L'Hopital's Rule**

Name \_\_\_\_\_

1)  $\int x^4 \cos x dx =$

2)  $\int \arcsin x dx =$

3)  $\int_1^e x^2 \ln x dx =$

4)  $\int \frac{x^2 - x - 20}{x - 5} dx =$

5)  $\int_4^8 \frac{40}{x^2 - 12x + 40} dx =$

6)  $\int \frac{8 + 2x}{x^2 + 16} dx$

$$7) \lim_{x \rightarrow 7} \frac{\sqrt{x-3}-2}{x-7} =$$

$$8) \lim_{x \rightarrow 0} \frac{11e^{2x}-11}{x} =$$

$$9) \lim_{x \rightarrow 0} \frac{\sin 5x}{10x} =$$

$$10) \lim_{x \rightarrow 5} \frac{32-2^x}{4x-20} =$$

$$11) \lim_{x \rightarrow 1} \frac{\ln e^x - 1}{100x - 100} =$$