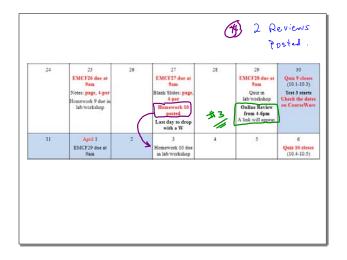
Info...

Test 3 review videos are posted!

Note the due date on Homework 10.

We will have an ONLINE review for Test 3 Friday from 4-6pm.



Popper 20

$$1. \lim_{x \to \infty} \frac{100x^2}{e^x} =$$

$$4. \lim_{x\to 0} \frac{x-\tan(x)}{x-\sin(x)} =$$

$$2. \lim_{x\to\infty}\frac{100\ln(x)}{x^2} =$$

2.
$$\lim_{x \to \infty} \frac{100 \ln(x)}{x^2} =$$
 5. $\lim_{x \to 0} \frac{1 - \sec(x)}{x^2} =$

$$3. \lim_{x\to\infty} x \sin\left(\frac{1}{x}\right) =$$

*3.
$$\lim_{x \to \infty} x \sin\left(\frac{1}{x}\right) = \lim_{x \to \infty} \frac{\sin\left(\frac{1}{x}\right)}{x} = \lim_{x \to \infty} \frac{\sin\left(\frac{1}{x}\right)}{x}$$

$$= \lim_{x \to \infty} \frac{\sin\left(\frac{1}{x}\right)}{x} = \lim_{x \to \infty} \frac{\sin\left(\frac{1}{x}\right)}{x$$

*4.
$$\lim_{x\to 0} \frac{x - \tan(x)}{x - \sin(x)} = \int_{0}^{\infty} \frac{\cos^{2}(x)}{1 - \cos(x)} = \int_{0}^{\infty} \frac{\cos^{2}(x)}{1 - \cos(x)}$$

Think or the L-H rule 2 more times.

Note: Sec²(x) = $\frac{1 - \sec^{2}(x)}{\cos^{2}(x)}$

= $\lim_{x\to 0} \frac{\cos^{2}(x)}{\cos^{2}(x)} \cdot \frac{1 - \sec^{2}(x)}{1 - \cos(x)}$

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