

The Chap. 4 Test (pages 495-496) provide some good sample problems for Wednesday's Test, with some exceptions:

	<u>Yes</u>	<u>No</u>
Problem #	1	2
	3	5
	4	
	6	
	7-9	10
	11-16	
	17-21	22
	24-26	23

13) $16^{2x+1} = 8^{3x}$ No calculator needed.

$$(2^4)^{2x+1} = (2^3)^{3x}$$

$$2^{8x+4} = 2^{9x}$$

$$8x+4 = 9x$$

$$4 = x$$

15) $e^{0.4x} = 4^{x-2}$

Solve to 3 decimal places

$$\ln e^{0.4x} = \ln 4^{x-2}$$

$$0.4x = (x-2) \ln 4$$

$$0.4x = (\ln 4)x - 2 \ln 4$$

$$0.4x - (\ln 4)x = -2 \ln 4$$

$$(0.4 - \ln 4)x = -2 \ln 4$$

$$x = \frac{-2 \ln 4}{0.4 - \ln 4} \approx 2.811$$