

Name: Key

EE322 Fall 2008 Quiz 03

Use MATLAB to find ALL answers below. Write the command(s) you used to find them.

1. e^3 $\text{exp}(3) = \boxed{20.0855}$

2. $\tan^{-1}(0)$ $\text{atan}(0) = \boxed{0}$

3. $\sin(30^\circ)$ $\sin(\text{pi}/6)$ or $\text{sind}(30) = \boxed{0.5}$

4. $x^6 + x^3 + 15.345$, if $x = -2.82$.

$$x = -2.82$$

$$x^6 + x^3 + 15.345 = \boxed{495.8343}$$

5. if $t = 0:0.02:7$, and $x = 2t - 5$, what is the 17th value of the x vector?

$$t = 0:0.02:7;$$

$$x = 2*t - 5;$$

$$x(17) = \boxed{-4.36}$$

6. $|4 - j3.3|$ (find the magnitude)

$$\text{abs}(4 - j*3.3) = \boxed{5.1856}$$

7. If you create a time vector that starts at time -3, and ends at time 6, with a step size of 1/47, how many elements will there be in the time vector?

$$t = -3 : 1/47 : 6$$
$$\text{length}(t) = \boxed{424}$$

8. $\sum_{x=0}^{x=20} (-x)^3$

$$x = 0 : 1 : 20$$

$$\text{sum}((-x).^3) = \boxed{-44100}$$

9. Multiply: $10 + j2.86$ by $10 - j2.86$.

$$(10 + j*2.86) * (10 - j*2.86) = \boxed{108.1796}$$

10. $\sqrt[5]{4.556}$

$$4.556^{(1/5)} = \boxed{1.3543}$$

Bonus: What was the last name of the Russian Royal family (the Tsar's family) that was executed after the Russian Revolution of 1917?

ROMANOV