NCFE PRACTICE #2 (WEEK OF APRIL 16 -24)

1. Connor and Seth have the same amount of money to deposit. If Seth's bank compounds continuously at 2.4% and Connor's bank compounds continuously at 3.1%, what will be the difference in their interest earned after 4 years? Assume they both have $3000 to deposit.

2. An amphitheater has 45 rows. The first row has 30 seats. Each row increases by 3 seats. If the tickets are $28 each and every row is filled, how much money will be made off of the ticket sales?

3. If S(n)= 3379, a(1)= 64, and a(n)=154. What is the common difference in the sequence?

#4.

James is standing 10 meters away from Samantha.

- A bird is located in the sky at a point between where James and Samantha are standing.
- James is looking up at the bird at an angle of elevation of 74°.
- Samantha is looking up at the bird at an angle of elevation of 47°.

Approximately how far is the bird from Samantha?

A 7.6 meters

B 8.5 meters

C 11.2 meters

D 13.1 meters

#5

A town has 685 households. The number of people per household is normally distributed with a mean, μ, of 3.67 and a standard deviation, σ, of 0.34. ***Approximately*** how many households have between 2.99 and 4.01 people?

A 493 households

B 520 households

C 558 households

D 575 households

Solve for $\angle B$ (tenth place)

$$189^2 = 150^2 + 147^2 - 2(150)(147)\cos B$$

NCFE PRACTICE #2 CONT.

7) SOLVE: $5 \ln(2X) + 10 = 20$

8) There are 25 questions on a multiple choice test that has one correct answer for each question and 5 answer choices. What is the probability that a students gets 10 questions incorrect?

9) Write an equation as a power function for the points (2,1) and (5,6). Hint: put the points in the table (stat) and calculate "power function".

10.

A solution's pH is given by the function $p(t) = \log(t)$, where t is the hydronium ion concentration, in moles per liter. A sample of coffee has a pH of 5.0. What is the ***approximate*** hydronium ion concentration of the sample?

A 0.000001

B 0.00001

C 0.0001

D 0.001