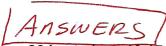
- 1. The number of a certain bacteria doubles every 25 minutes. There are 20 bacteria at 10:15 am.
- a) Find the number of bacteria, to the nearest whole number, at 2:40 pm.

b) Find the number of hours, to the nearest hundredth, it will take for the number of bacteria to reach 5000.

2. Solve.

$$8e^{x+5} + 11 = 53$$

## Bellwork Alg 2 Monday, March 30, 2020



- 1. The number of a certain bacteria doubles every 25 minutes. There are 20 bacteria at 10:15 am.
- a) Find the number of bacteria, to the nearest whole number, at 2:40 pm.

X = Exponent = # 25 min periods

TOTAL TIME FROM 10:15am to 2:40pm

$$y = 20(2)^{10.6}$$
  
 $= 31.042$   
0:15am to 2:40pm bacteria  
= 4hrs 25min = 265 min

$$X = \frac{265}{25} = 10.6$$

b) Find the number of hours, to the nearest hundredth, it will take for the number of bacteria to reach 5000.

$$\frac{5000}{20} = \frac{20(2)^{\times}}{20}$$

300000

2. Solve.

$$8e^{x+5} + 11 = 53$$

$$X = -3.34$$