Class,

Here is the correct solution to 36c

It is not possible to write the first 10 as 2*5 and write the sum from there as the rest of the terms have 2*10. You must consider the sum from the second term on and add ten to the end or you can multiply the first 10 by 2 and subtract 10. To include all bounces, I will do the second option.

$$10 + 2(10(\frac{3}{4})) + 2(10(\frac{3}{4})^2) + 2(10(\frac{3}{4})^3) + ... + 2(10(\frac{3}{4})^n) = 2 * 10 + 2(10(\frac{3}{4})) + 2(10(\frac{3}{4})^2) + 2(10(\frac{3}{4})^3) + ... + 2(10(\frac{3}{4})^n) - 10$$

Given the right hand of the equation, we get:

$$\left(2 * \Sigma_{i=1}^{n} 10\left(\frac{3}{4}\right)^{i-1}\right) - 10$$