

1. The mass number of an element is not changed, when it emits _____ radiations
 - A. Alpha, Beta, and Gamma
 - B. Alpha and Gamma
 - C. Alpha and Beta
 - D. Beta and Gamma**

2. A nuclear reactor with $k_{eff} = 0.982$, how much positive reactivity is required to make the reactor critical?
 - A. 1.720% $\Delta k/k$
 - B. 1.767% $\Delta k/k$
 - C. 1.800% $\Delta k/k$
 - D. 1.833% $\Delta k/k$**

3. Rankine cycle efficiency of a good steam power plant may be in the range of
 - A. 15 to 20 %
 - B. 35 to 45 %**
 - C. 70 to 80 %
 - D. 90 to 95 %