Names: _____

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Group Activity 7 **Due:** In class, September 19th

1. Which of these nuclei (^{144}Nd, ^{150}Nd, ^{190}Pt) is unstable to α decay? Show this with calculations.

2. What's the kinetic energy of the α emitted from ^{146}Sm?

3. Assuming a typical value for the α preformation factor and similar assault frequencies and tunneling probabilities, estimate the branching ratio of ^{14}C decay to α decay for ^{222}Ra. Compare this to the decay branching listed by the NNDC.