## Physics Interactive Quiz: Nuclear Physics Name:

| _ | iiyaica | 111         | iteractive Quiz . Nuclear   | Filysic | , 5          | iaiiic.                 |
|---|---------|-------------|---|---------|--------------|-------------------------|
|   | #       | 4           | question  | Answer  | #ARG!        | <score< th=""></score<> |
|   |         |             | grams of a substance has a half life of 2 minutes. How much is left after 8 minutes?  |         |              |                         |
| # | 1       | 6           |   |         | 0            |                         |
|   |         |             | How much was present 8 minutes earlier than the beginning of the experiment?  |         |              |                         |
| # | 2       | 6           |   |         | 0            |                         |
| # | 3       | 4           | years is the half life of an isotope. What fraction of the original sample is left after two half lives?  |         | 0            |                         |
|   |         | •           | an alpha particle hits Be9/4, emitting a neutron and what?  |         |              |                         |
| # | 4       | 1           |   | #VA     | LO###A#R.CG  |                         |
|   | _       | _           | a neutron hits Boron 10/5 emitting an alpha particle and what?  |         |              |                         |
| # | 5       | 1           | Harris and a control of the control | #VA     |              |                         |
|   |         |             | How many neutrons are in Uranium 238?   |         |              |                         |
| # | 6       | 1           |   |         | 0            |                         |
|   |         |             | Carbon 14 decays into Nitrogen 14 with an electron. If the mass lost is 0.000168 amu, how much energy is this in MeV?   |         |              |                         |
| # | 7       | 1           |   |         | 0            |                         |
|   |         |             | U235 decays into Xe140/54 and Sr 94/38 when hit by a neutron. What else is left?  |         |              |                         |
| # | 8       | 1           |   | #VA     | L2##EAIR 650 |                         |
| # | 9 6     | 5.25        | percent of the original carbon 14 is found in<br>a sample. Carbon 14 has a half life of 5730<br>years. How old is the sample?   |         | 0            |                         |
| # | 3 6     | ,. <u>.</u> | How many half lives is this?  |         | U            |                         |
|   |         |             | now many man nyoo to tino:  |         |              |                         |
| # | 10 6    | 5.25        |   |         | 0            | {                       |

## Extra Credit: