**6.1 CLASS WORKSHEET**

**HOMEWORK 6.1A**

1. **Nuclear equations vs Chemical Equations**

Briefly summarise the main differences between nuclear equations and chemical equations in the table below:

|  |  |
| --- | --- |
| Nuclear equations | Chemical Equations  |
|  |  |

1. **Writing nuclear equations**

|  |  |  |
| --- | --- | --- |
| (a) | Complete the nuclear equation to show the emission of an alpha particle by radium-224 | $$ ⟶ $$ + .......... |
| (b) | Write a nuclear equation to show the emission of an alpha particle by americium-241 |   |
| (c) | Complete the nuclear equation to show the emission of a beta particle by actinium-228 |  $$ ⟶ $$ + .......... |
| (d) | Write a nuclear equation to show the emission of a beta particle by oxygen-18 |   |
| (e) | Polonium-216 is formed when another atom releases an alpha particle. Complete the nuclear equation for this reaction. |  .......... ⟶ $$ + $$ |
| (f) | Nitrogen-14 is formed when another atom releases a beta particle. Write a nuclear equation for this reaction. |   |