# DART exercise answers

***Education in Chemistry***March 2018[rsc.li/EiC218-thehuntison](http://rsc.li/EiC218-thehuntison)

1. Which two countries are involved in the race for a new element?

*Japan and Russia (or an American-Russian team)*

1. How many atoms were observed to confirm the discovery of element 113?

*3*

1. Using a full periodic table ([www.rsc.org/periodic-table](http://www.rsc.org/periodic-table)) and the article, work out how many elements there are which are reported in the periodic table but not found on Earth.

*24*

1. Describe how a new superheavy element is made.

*Two atoms are smashed together to make a bigger one in a particle accelerator*.

1. Give two reasons why it is so difficult to make a superheavy element

*Reason 1: A direct hit between two nuclei is very rare.*

*Reason 2: If there is a hit then the nucleus may shake itself apart in nuclear fission.*