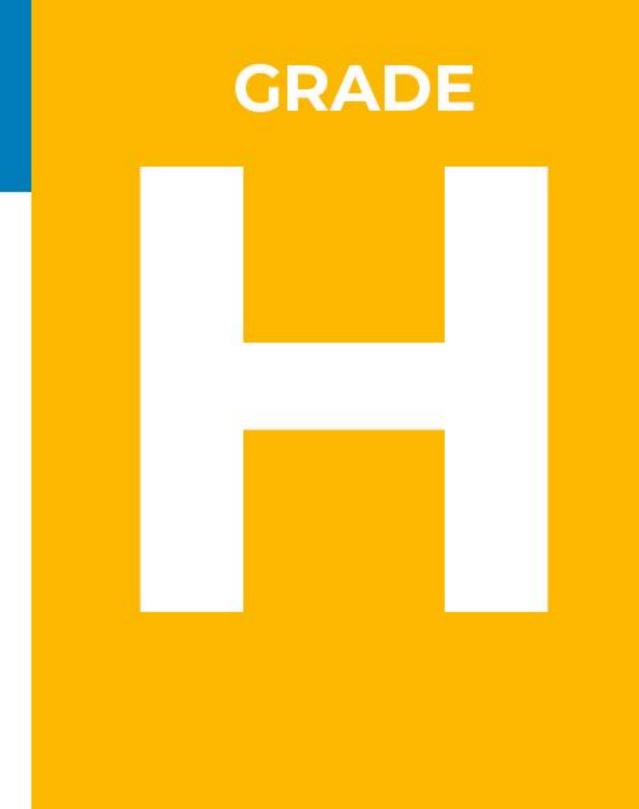


Name \_\_\_\_\_ Date \_\_\_\_\_



## Fission or fusion?

## Instructions

Using the Periodic Table of Elements, predict the results of the nuclear reactions. Determine if the reaction is fission or fusion. Check the answer.

1. 
$$^{235}_{92}$$
U +  $^{1}_{0}$ n  $\rightarrow ^{145}_{57}$ La +  $^{88}_{35}$ Br +  $^{1}_{0}$ n

	La	Br	Free Neutron(s)	
Total Mass				Fission
Protons				or Fusion
Neutrons				Fusion

2. 
$${}_{1}^{2}$$
 H +  ${}_{1}^{3}$  H  $\rightarrow {}_{2}^{4}$  He +  ${}_{0}^{1}$  n

	He	Free Neutron(s)	
Total Mass			Fission
Protons			Fusion
Neutrons			



3. 
$$^{235}_{92}$$
 U +  $^{1}_{0}$  n  $\rightarrow$   $^{137}_{52}$  Te +  $^{97}_{52}$  Zr +  $^{2}_{0}$  n

	Te	Zr	Free Neutron(s)	
Total Mass				Fission
Protons				or Fusion
Neutrons				

4. 
$${}^{13}_{6}$$
 C +  ${}^{4}_{2}$  He  $\longrightarrow$   ${}^{16}_{0}$  O +  ${}^{1}_{0}$  n

	0	Free Neutron(s)	
Total Mass			Fission
Protons			Fusion
Neutrons			- Cusion

5. 
$$^{235}_{92}$$
 U +  $^{1}_{0}$  n  $\rightarrow$   $^{152}_{0}$  Nd +  $^{81}_{32}$  Ge +  $^{1}_{0}$  n

	Nd	Ge	Free Neutron(s)	
Total Mass				Fission
Protons				Fusion
Neutrons				

6. 
$${}^{2}_{1}H + {}^{2}_{1}H \rightarrow {}^{3}_{0}He + {}^{1}_{0}n$$

	He	Free Neutron(s)	
Total Mass			Fission
Protons			or Fusion
Neutrons			- Fusion



7. 
$$^{235}_{92}U + ^{1}_{0}n \rightarrow ^{131}_{0}Sn + ^{103}_{0}Mo + 2 ^{1}_{0}n$$

	Sn	Мо	Free Neutron(s)	
Total Mass				Fission
Protons				or Fusion
Neutrons				rusion

8. 
$$^{235}_{92}$$
 U +  $^{1}_{0}$  n  $\rightarrow$   $^{138}_{0}$  Xe +  $^{95}_{38}$ Sr +  $^{1}_{0}$  n

	Xe	Sr	Free Neutron(s)	
Total Mass				Fission
Protons				Fusion
Neutrons				