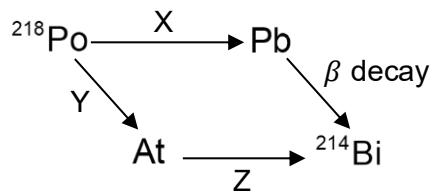


**30**  $^{218}\text{Po}$  decays to  $^{214}\text{Bi}$  via two pathways as shown in the figure below.



What are the possible radioactive decay modes X, Y and Z?

	X	Y	Z
A	$\gamma$ decay	$\alpha$ decay	$\beta$ decay
B	$\alpha$ decay	$\beta$ decay	$\alpha$ decay
C	$\beta$ decay	$\alpha$ decay	$\gamma$ decay
D	$\alpha$ decay	$\alpha$ decay	$\beta$ decay

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