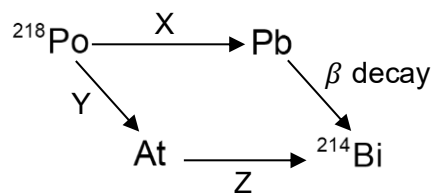


- 30 ^{218}Po decays to ^{214}Bi via two pathways as shown in the figure below.



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

| | X | Y | Z |
|---|----------------|----------------|----------------|
| A | γ decay | α decay | β decay |
| B | α decay | β decay | α decay |
| C | β decay | α decay | γ decay |
| D | α decay | α decay | β decay |

END OF PAPER