Exemplar Problems

Q17. Identify the pairs which are not of isotopes?

- (a) ${}_{6}^{12}X, {}_{6}^{13}Y$ (b) ${}_{17}^{35}X, {}_{17}^{37}Y$ (c) ${}_{6}^{14}X, {}_{7}^{14}Y$ (d) ${}_{4}^{8}X, {}_{5}^{8}Y$

Sol. (c, d) Isotopes have the same atomic number but different mass number.

 \therefore $\binom{14}{6}X, \binom{14}{7}Y$) and $\binom{8}{4}X, \binom{8}{5}Y$) are not isotopes.