Intervals of Convergence

Question

Suppose that $\sum_{n=0}^{\infty} a_n(x-2)^n$ converges when $x = 5$ and diverges when $x = -4$. Which of the following statements must be true? (There is more than one right answer)

A. $\sum_{n=0}^{\infty} a_n(x-2)^n$ converges when $x = 1$.

B. $\sum_{n=0}^{\infty} a_n(x-2)^n$ diverges when $x = 6$.

C. $\sum_{n=0}^{\infty} a_n(x-2)^n$ converges when $x = -1$.

D. $\sum_{n=0}^{\infty} a_n(x-2)^n$ diverges when $x = -5$.