

Answer on Question #64523 – Math – Real Analysis

Question

Show that if X and Y are sequences such that X and $X+Y$ are convergent, then Y is convergent.

Solution

We can write $Y = (X + Y) - X$. Then we use two facts:

- 1) both sequences X and $X + Y$ are convergent
- 2) the difference of two convergent sequences is also convergent.

Therefore sequence Y is convergent.