

An explosion occurs in a mine at a depth of 3 km.

The direct P waves are recorded at 2 similar stations at a depth of 1 km and epicentral distances of 0 and 2 km. The dominant frequency is 50 Hz.

The maximum amplitude at the first station is 15621 counts and at the second 2937 counts.

Give the value of Q.

(Consider a wave speed of 5000m/s)