**Name**: Devansh Shah

**Div/Batch**: B/B1

**Roll no.**: 1914078

Q87.Obtain half-range cosine series for f (x) = x in 0 < x < l . Hence deduce that + … =

Ans) Let

∴ a0 =

=

=

=

)

By Parseval’s identity,

x

-------(1)

-------(2)

-----from (1)

-----from (2)

-------(3)

Putting (3) in (2),

🡪

**Hence Proved**