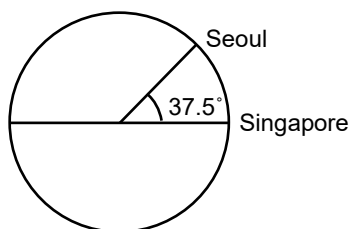


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Singapore is on the Equator. Seoul is at a latitude of 37.5° N as depicted in the diagram below.



The centripetal acceleration at Singapore due to the Earth's rotation about its axis is $a_{\text{Singapore}}$. The centripetal acceleration at Seoul due to the Earth's rotation about its axis is

a_{Seoul} . What is the ratio $\frac{a_{\text{Singapore}}}{a_{\text{Seoul}}}$?

A 0.79

B 1.00

C 1.26

D 9.81