

Let $(\sin x)(\cos x) = .35$ and $\sin x + \cos x = 1.30$. Which is $(\csc x) + (\sec x)$?

A. 2.17

B. 3.71

C. 3.77

D. 2.71

By definition:

$$\csc x = \frac{1}{\sin x}$$

$$\sec x = \frac{1}{\cos x}$$

Therefore:

$$\csc x + \sec x = \frac{1}{\sin x} + \frac{1}{\cos x} = \frac{\cos x + \sin x}{\cos x \sin x}$$

If $\sin x \cos x = 0.35$ and $\sin x + \cos x = 1.3$:

$$\csc x + \sec x = \frac{1.3}{0.35} = 3.71$$

Answer: B. 3.71