20147 How many solutions of the equation $(\sin x-1)(\tan x+2)=0$ lie between 0 and $2 \pi$ ?
(A) 1
(B) 2
(C) 3
(D) 4

B

$$
\begin{aligned}
(\sin x-1)(\tan x+2) & =0 \\
\sin x-1 & =0 \\
\sin x & =1 \\
x & =\frac{\pi}{2} \\
\tan x+2 & =0
\end{aligned}
$$

$\tan x=-2$ has two solutions.
But $x=\frac{\pi}{2}$ is not solution of $\tan x+2=0$, as $\tan \frac{\pi}{2}$ is undefined.
$\therefore$ there are only 2 solutions.

[^0]
[^0]:    * These solutions have been provided by projectmaths and are not supplied or endorsed by BOSTES.

