

## Answer on Question #82801 – Math – Trigonometry

### Question

simplify  $(\sin^2(x)+2\sin(x)+1)/(\sin^2(x)+\sin(x))$

### Solution

$$\frac{\sin^2 x + 2 \sin x + 1}{\sin^2 x + \sin x} = \frac{(1 + \sin x)^2}{\sin x(1 + \sin x)} = \frac{1 + \sin x}{\sin x} = \frac{1}{\sin x} + 1 = \operatorname{cosec} x + 1.$$

**Answer:**  $\frac{\sin^2 x + 2 \sin x + 1}{\sin^2 x + \sin x} = \operatorname{cosec} x + 1 .$