\* \* \* \* \*

$$1 \mid \int tan^2x + 1dx$$

$$\int tan^2x + 1dx = \int sec^2x - 1 + 1dx$$

$$= \int sec^2xdx$$
Let  $u = x, du = 1$ 

$$= \int sec^2udu$$

$$= tanu + C$$

$$= \boxed{tanx + C}$$

Taproot · 2020-2021