1. Find
$$\int_0^{\pi/2} e^x \cos x \, dx$$

2. Find $\int \tan^5 x \sec x \, dx$

Answer: _____

3. True or False?

a) If
$$\sec \theta = \frac{5}{3}$$
, then $\cot \theta = \frac{3}{4}$.

$$b) \int e^{x^2} \, \mathrm{d}x = \frac{e^{x^2}}{2x}$$

Answer: _____

Answer: _____