

Name _____ Daily Quiz 2 Tuesday 3-17-20

Either scan your answers or send a picture using remind or email JUSTIFY YOUR STEPS

State the INDEFINITE integral for each of the following

$$\int 3 \cos x \, dx$$

$$\int 4 \sec^2 x \, dx$$

$$\int 9 \sin x \, dx$$

$$\int 16e^x \, dx$$

$$\int \frac{1}{3} \tan x \sec x \, dx$$

$$\int 6 \cdot 5^x \, dx$$

$$\begin{aligned} 1) \int (3 \cdot \cos(x)) dx \\ = 3 \int \cos(x) dx \\ = 3 \cdot \sin(x) + C \end{aligned}$$

$$\begin{aligned} 2) \int (9 \cdot \sin(x)) dx \\ = 9 \int \sin(x) dx \\ = -9 \cdot \cos(x) + C \end{aligned}$$

$$\begin{aligned} 3) \int \frac{1}{3} \cdot \tan(x) \cdot \sec(x) dx \\ = \frac{1}{3} \cdot \int (\tan(x) \cdot \sec(x)) dx \\ = \frac{1}{3} \cdot \sec(x) + C \end{aligned}$$

$$\begin{aligned} 4) \int (4 \cdot (\sec^2(x))) dx \\ = 4 \cdot \int \sec^2(x) dx \\ = 4 \cdot \tan(x) + C \end{aligned}$$

$$\begin{aligned} 5) \int (16 \cdot e^x) dx \\ = 16 \int e^x dx \\ = 16 \cdot e^x + C \end{aligned}$$

$$\begin{aligned} 6) \int (6 \cdot 5^x) dx \\ = 6 \cdot \int (5^x) dx \\ = 6 \cdot \frac{1}{\ln(5)} \cdot 5^x + c \end{aligned}$$