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

$\int 3\cos x \, dx$

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

$\int 9\sin x \, dx$

$\int 16e^x \, dx$

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

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

1) $\int(3\cdot\cos(x))\,dx$

$=3\int\cos(x)\ dx$

$=3\cdot\sin(x)+C$

2) $\int(9\cdot\sin(x))\,dx$

$=9\int\sin(x)\ dx$

$=-9\cdot\cos(x)+C$

3) $\int\left(\frac{1}{3}\cdot\tan(x)\cdot\sec(x)\right)dx$

$=\frac{1}{3}\cdot\int(\tan(x)\cdot\sec(x))\,dx$

$=\frac{1}{3}\cdot\sec(x)+C$

4) $\int\left(4\cdot\left(\sec^2(x)\right)\right)dx$

$=4\cdot\int\sec^2(x)\ dx$

$=4\cdot\tan(x)+C$

5) $\int\left(16\cdot e^x\right)dx$

$=16\int e^x\ dx$

$=16\cdot e^x+C$

6) $\int\left(6\cdot 5^x\right)dx$

$=6\cdot\int\left(5^x\right)\ dx$

$=6\cdot\frac{1}{\ln(5)}\cdot 5^x+c$