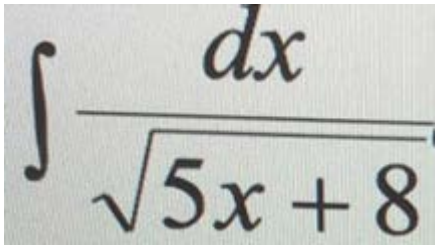
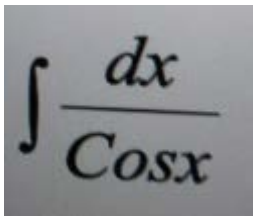


$$\int \frac{dx}{\sqrt{5x+8}} \Rightarrow \begin{cases} u = 5x+8 \\ du = 5dx \end{cases} = \frac{1}{5}\int \frac{5dx}{\sqrt{5x+8}} =$$

$$= \frac{1}{5}\int \frac{du}{\sqrt{u}} = \frac{2}{5}\int \frac{du}{2\sqrt{u}} = \frac{2}{5}\sqrt{u} + C = \frac{2}{5}\sqrt{5x+8} + C$$



$$\int \frac{1}{\cos(x)}dx = \int \frac{\cos(x)}{cos^2(x)}dx = \int \frac{\cos(x)}{1-sin^2(x)}dx \rightarrow \begin{cases} u = \sin(x) \\ du = \cos(x)\,dx \end{cases} =$$

$$= \int \frac{du}{1-u^2} = \int \frac{1}{(1-u)(1+u)}du = \ldots$$

$$\frac{1}{(1-u)(1+u)} = \frac{A}{1-u} + \frac{B}{1+u} = \frac{A(1+u)+B(1-u)}{(1-u)(1+u)} = \frac{(A-B)u+A+B}{(1-u)(1+u)} \Rightarrow$$

$$\Rightarrow \begin{cases} A-B=0 \\ A+B=1 \end{cases} \Rightarrow A = B = \frac{1}{2} \Rightarrow \frac{1}{(1-u)(1+u)} = \frac{1/2}{1-u} + \frac{1/2}{1+u} = \frac{1}{2}\left(\frac{1}{1-u} + \frac{1}{1+u}\right)$$

$$\ldots = \frac{1}{2}\int \left(\frac{1}{1-u} + \frac{1}{1+u}\right)du = \frac{1}{2}(-ln|1-u| + ln|1+u|) + C =$$

$$= \frac{1}{2}ln\left|\frac{1+u}{1-u}\right| + C = ln\sqrt{\frac{1+u}{1-u}} + C = ln\sqrt{\frac{1+\sin(x)}{1-\sin(x)}} + C$$