Indefinite integrals:

$$\int \left(3\,e^x + 7\sec^2(x)\right) dx = 3\,e^x + 7\tan(x) + \text{constant}$$

Possible intermediate steps:

$$\int \left(3\,e^x + 7\sec^2(x)\right) dx$$

Integrate the sum term by term and factor out constants:

$$= 3\int e^x\,dx + 7\int \sec^2(x)\,dx$$

The integral of $\sec^2(x)$ is $\tan(x)$:

$$= 7\tan(x) + 3\int e^x\,dx$$

The integral of e^x is e^x:

$$= 3\,e^x + 7\tan(x) + \text{constant}$$

Check:

Derivative:

$$\frac{d}{dx}\left(3\,e^x + 7\tan(x)\right) = 3\,e^x + 7\sec^2(x)$$

Possible derivation:

$$\frac{d}{dx}\left(3\,e^x + 7\tan(x)\right)$$

Differentiate the sum term by term and factor out constants:

$$= 3\left(\frac{d}{dx}\left(e^x\right)\right) + 7\left(\frac{d}{dx}\left(\tan(x)\right)\right)$$

The derivative of e^x is e^x:

$$= 7\left(\frac{d}{dx}\left(\tan(x)\right)\right) + 3\,e^x$$

The derivative of $\tan(x)$ is $\sec^2(x)$:

$$= 3\,e^x + 7\sec^2(x)$$