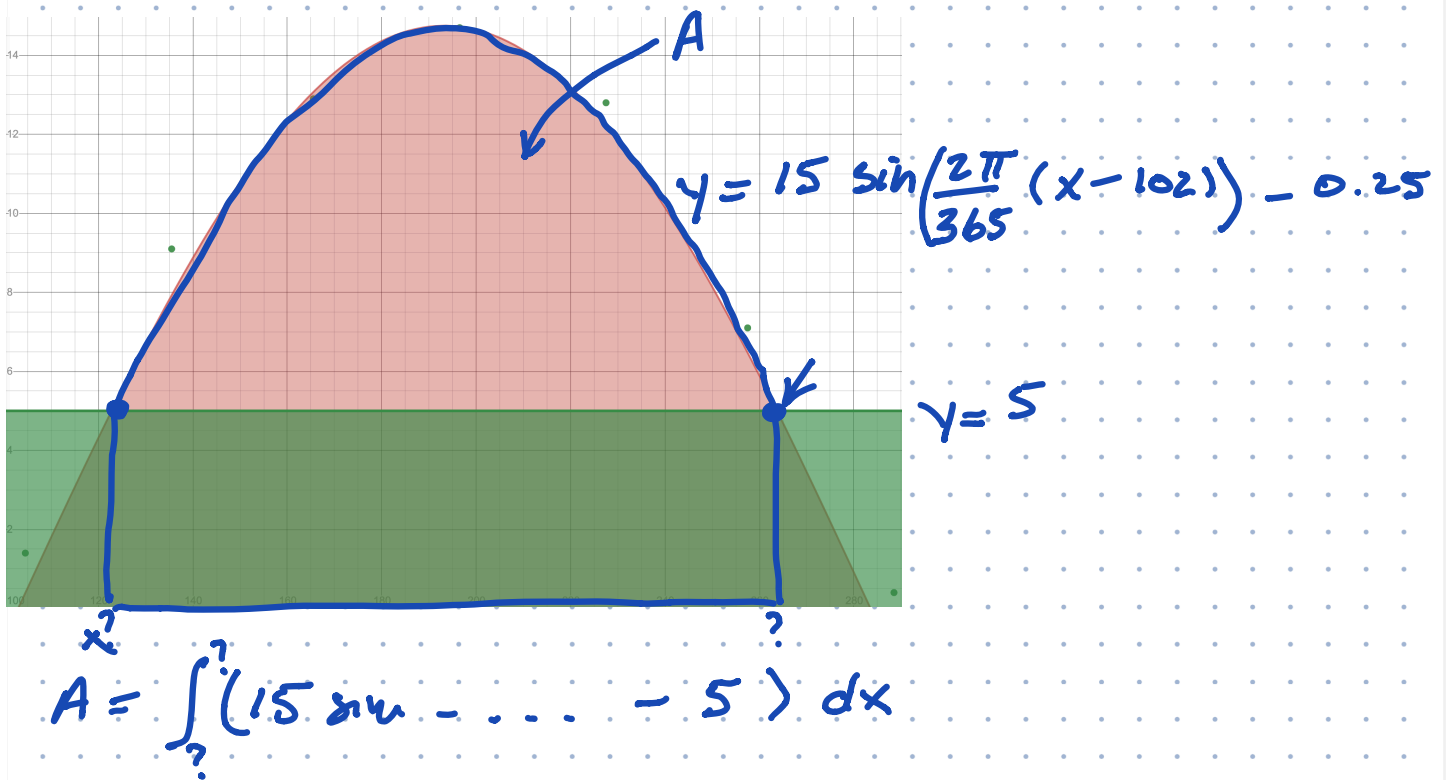


Canola GDD Integration



$$15 \sin\left(\frac{2\pi}{365}(x - 102)\right) - 0.25 = 5.25$$

arcsin

$$\sin^{-1}\left(\sin\left(\frac{2\pi}{365}(x - 102)\right)\right) = \sin^{-1}\left(\frac{5.25}{15}\right)$$

$$\frac{2\pi}{365}(x - 102) = \frac{0.357571103 \times 365}{2\pi} + 102$$

$$x_1 = 122.7718612 \checkmark$$

$$x_2 = 263.728$$



$$A = \int_{122.772}^{263.728} \left(15 \sin\left(\frac{2\pi}{365}(x-102)\right) + \underbrace{0.25 - 5}_{-4.75} \right) dx$$

$$= 15 \cos\left(\frac{2\pi}{365}(x-102)\right) \cdot \frac{365}{2\pi} - 4.75x$$

$$= \left. -\frac{15 \cdot 365}{2\pi} \cos\left(\frac{2\pi}{365}(x-102)\right) - 4.75x \right|_{122.772}^{263.728}$$

→ Excel!

