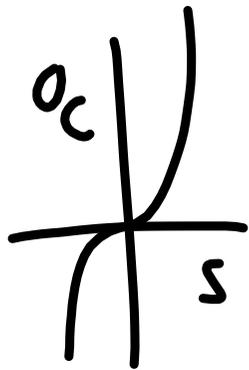
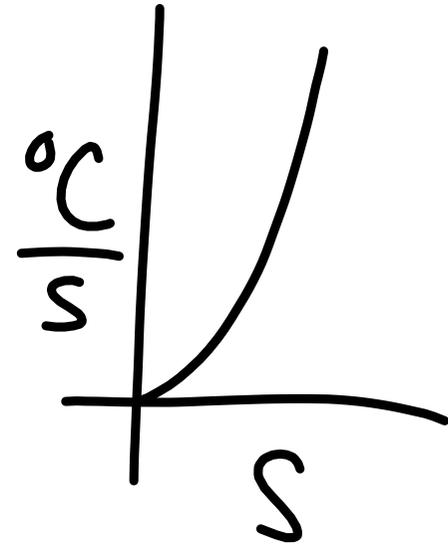


③

$$F(x) = 2.00x^2 \frac{^{\circ}\text{C}}{\text{s}}$$



$$\int 2.00x^2 dx$$

$$\frac{2.00x^3}{3.00} + C + 23.0$$

$$\frac{^{\circ}\text{C}}{\text{s}} \cdot \frac{\text{s}}{1} = ^{\circ}\text{C}$$

$$\frac{2.00(4.00)^3}{3.00} + 23.0 = \boxed{65.7^{\circ}\text{C}}$$

$$\textcircled{4} \quad F(t) = 3.00t + 5.00 \frac{\text{ML}}{\text{s}}$$

$$\int 3.00t + 5.00 \, dt$$

$$1000 = \frac{3.00t^2}{2.00} + \frac{5.00t}{1.00} + \cancel{C} \quad \textcircled{0}$$

$$t = 24.2 \text{ s}$$

