

$$V = \frac{1}{2} b \cdot h \cdot w$$



$$h : b = 2 : 12$$

$$\frac{h}{b} = \frac{2}{12} \quad \frac{h}{b} = \frac{1}{6}$$

$$\underline{6h = b}$$

$$\frac{dh}{dt} \quad \frac{dV}{dt} = \frac{1}{4} \frac{\text{m}^3}{\text{min}}$$

$$V = \frac{1}{2} (6h) h \cdot 6m$$

$$V = 18 h^2$$

$$\frac{dV}{dt} = 36 h \frac{dh}{dt}$$

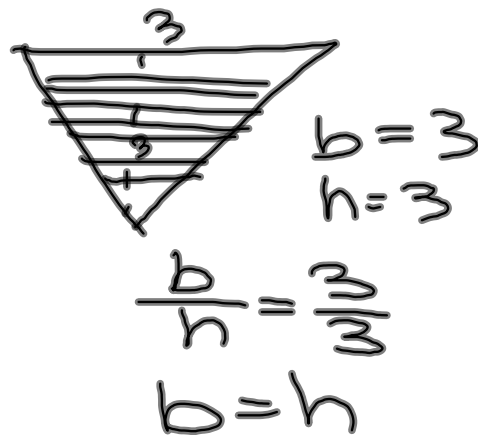
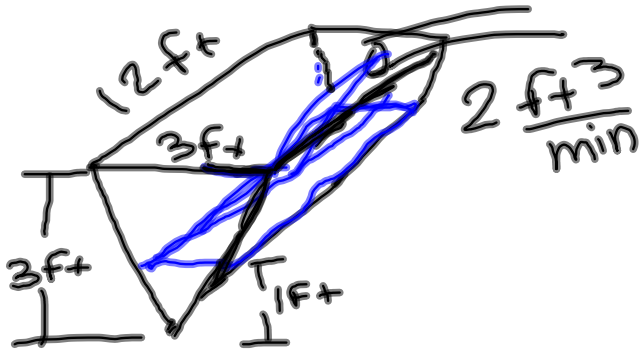
$$\frac{1}{4} = 36 h \frac{dh}{dt}$$

What is the change in height when $h = 1.4 \text{ m}$

$$\frac{1}{4} = 36 \cdot 1.4 \frac{dh}{dt}$$

$$\frac{1}{4} = 50.4 \frac{dh}{dt}$$

$$\frac{dh}{dt} = 0.0050 \text{ m/min}$$



$$V = \frac{1}{2} b \cdot h \cdot w$$

$$V = \frac{1}{2} h \cdot h \cdot 12$$

$$V = 6h^2$$

$$\frac{dV}{dt} = 12h \frac{dh}{dt}$$

$$2 = 12 \cdot 1 \frac{dh}{dt}$$

$$2 = 12 \frac{dh}{dt}$$

$$\frac{dh}{dt} = \frac{1}{6} \frac{\text{ft}}{\text{min}}$$

$$(n^{\frac{3}{4}} + n^{\frac{1}{2}})(n^{-\frac{3}{4}} + n^{-\frac{1}{2}})$$

$$n^0 + n^{\frac{1}{2}} + n^{-\frac{1}{2}} + n^0$$

$$2 + n^{\frac{1}{2}} + n^{-\frac{1}{2}}$$

$$2 + \sqrt{n} + \frac{1}{\sqrt{n}}$$

$$2 + \sqrt{n} + \frac{\sqrt{n}}{\sqrt{n}}$$

$$\sqrt{n} \cdot \sqrt{n} = n$$