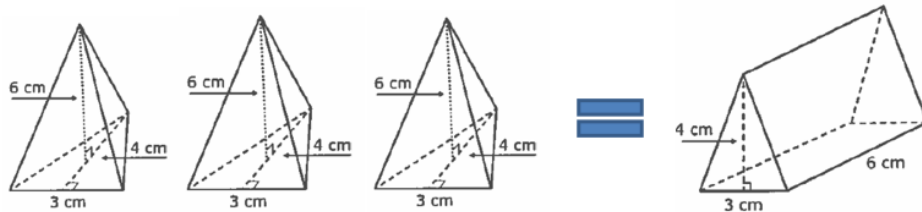


Possible Solutions

Explain the relationship between the volume of a triangular prism and a triangular pyramid with congruent bases and heights in the given model and connect that relationship to the formulas for volume of a triangular prism and triangular pyramid.

Solution 1



3 x volume of a triangular pyramid = volume of a triangular prism

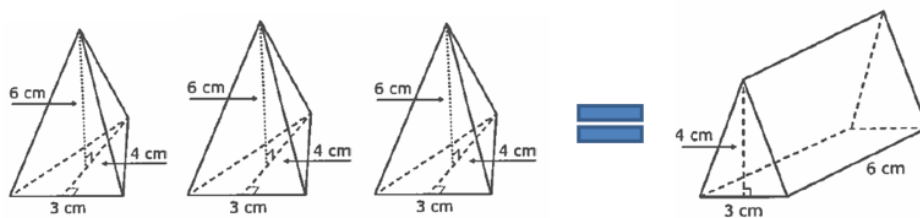
$$3 \times \frac{1}{3} Bh = Bh$$

$$3 \times \frac{1}{3} \left[\frac{1}{2} (3)(4) \right] 6 = \left[\frac{1}{2} (3)(4) \right] 6$$

$$\left[\frac{1}{2} (3)(4) \right] 6 = \left[\frac{1}{2} (3)(4) \right] 6$$

$$36 \text{ cm}^3 = 36 \text{ cm}^3$$

Solution 2



3 x volume of a triangular pyramid = volume of a triangular prism

$$3 \times \left(\frac{1}{3} B \times h \right) = B \times h$$

$$\frac{3 \times \left(\frac{1}{3} B \times h \right)}{3} = \frac{B \times h}{3}$$

$$3$$

$$\frac{1}{3} B \times h = \frac{1}{3} B \times h$$