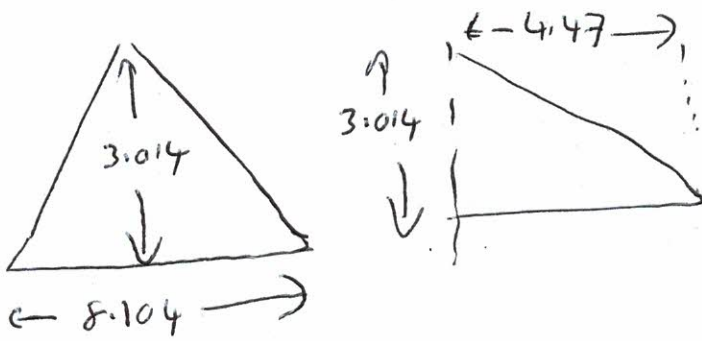


97 Harefield Rd Uxbridge - Loft Calculations



Vol of Original hip

$$V = \frac{\text{Base area} \times h}{3}$$

$$= \frac{8.104 \times 4.47}{3} \times 3.014 = \underline{36.21 \text{ m}^3}$$

Total Vol of Prism

$$(\frac{1}{2} bh) \times l$$

$$= (\frac{1}{2} \times 8.104 \times 3.014) \times 4.47 = \underline{54.59 \text{ m}^3}$$

∴ New Gable Increase.

$$54.59 - 36.21$$

$$= \underline{\underline{18.38}}$$

Dormer

$$\frac{3.498}{2} \times 2.395 \times 5.123 = \underline{21.46 \text{ m}^3}$$

$$\underline{\underline{21.46 \text{ m}^3}}$$

$$\text{Total Increase in Roof Volume. } (18.38 + 21.46) = \underline{\underline{39.84 \text{ m}^3}}$$