

27/11/2020
 12 Chatsworth Road
 Dartford
 DA1 5AT

CALCULATION FOR THE ROOF VOLUME
 (Hip to gable with a rear dormer)

Project Address :

- A depth of the main roof 7.37
- B width of the main roof 6.07
- C height of the main roof 2.78
- D ridge to eaves in plan 3.97
- E Projection of the rear dormer 3.20
- F Height of the rear dormer 2.38
- G Width of the rear dormer 5.17

$0 \times 2 = 3.97 \times 2 = 7.94$
 $\frac{1}{3} C = \frac{2.78}{3} = 0.92$

Volume of the triangular prism
 area of the triangle x its length
 $(A \times C / 2) \times (D \times 2)$
 $7.37 \times 2.78 / 2 \times 7.94$
 81.33 cu M

Volume of the pyramid
 base area x 1/3 height
 $(A \times (D \times 2)) \times 1/3 C$
 $7.37 \times 7.94 \times 0.92$
 53.83 cu M

Volume of the additional segment
 Hip to Gable
 Prism - Pyramid / 2
 $81.33 - 53.83 / 2$
 13.75 cu M

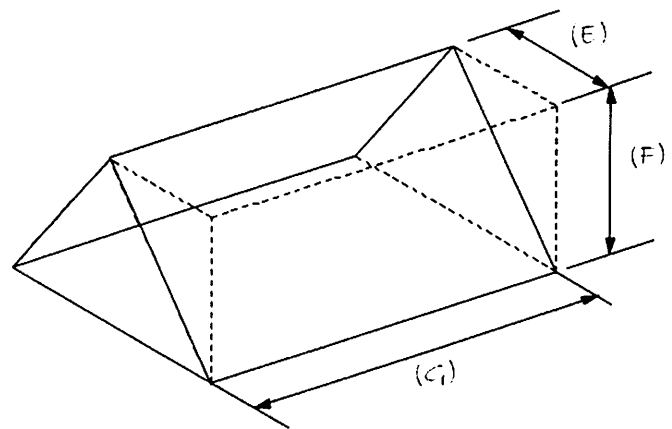
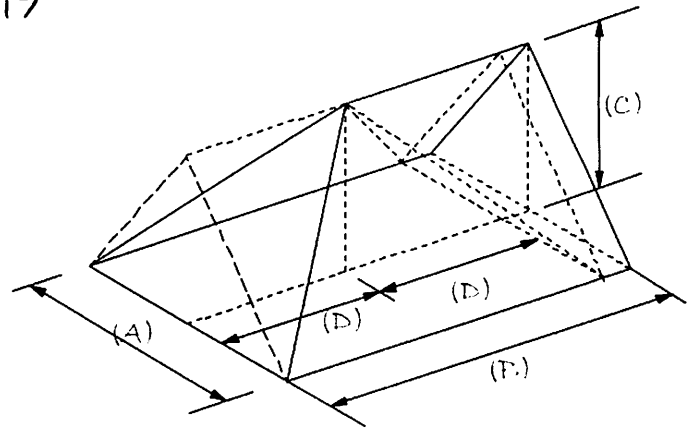
Volume of the additional rear dormer
 area of the triangle x its length
 $(E \times F / 2) \times G$
 $3.20 \times 2.38 / 2 \times 5.17$
 19.68 cu M

TOTAL volume of development in the roof
 $13.75 + 19.68$
 33.43 cu M

Balance of development allowed in the loft
 Based on an allowed volume of

cu M

cu M



Detached and Semi-Detached : 50 cu m in the loft
 Terraced : 40 cu m in the loft
 Extension to be set back 200 mm from the eaves