Student 4: High Achieved

Part 1

Volume of A = 1/2x10x40x30=6000cm^3

Volume of B = 40x50x30=60 000cm^3

Volume of C = ½(40+50)x10x30=13 500cm^3

Volume of D = ½(40+50)x10x30=13 500cm^3

Volume of sculpture = A + B + C + D

= 93 000cm^3
= 0.093m^3

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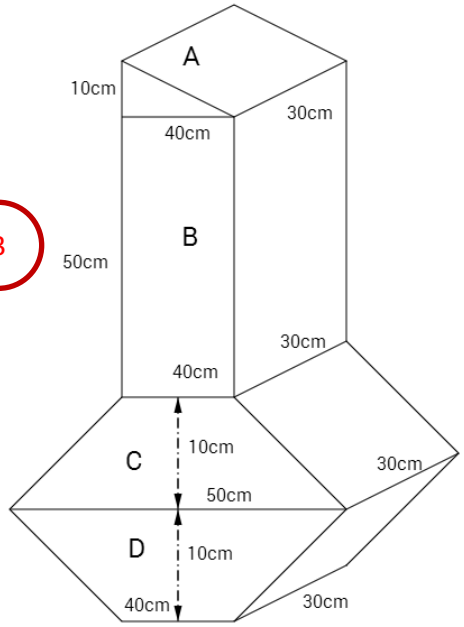

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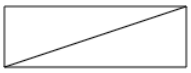
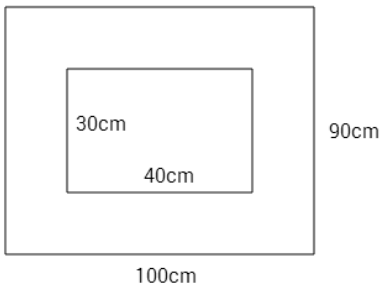
Part 2
For shape A the minimum volume of stone is 12 000cm^3. Because it is a triangular prism the volume must be doubled to form two triangles so a rectangular box is formed.



For shape B the shape is already a rectangular object so the volume of stone required is its volume = 60 000cm^3



Area = 100 x 90 = 9 00cm^2
Area of paving = 0.9 – 0.12 = 0.78m^2

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