Mind Game # 3 - Detailed Solution, Comments and Winners

Mind Game # 3

In the dissection of the frustum of the pyramid, with height *h* and side lengths *a* and *b* of the top and the bottom squares respectively, shown above what are rectangular shapes (cuboids) that can be made from the 4 pieces painted red or blue and their dimensions?

Solution

Three different cuboids can be made using the 4 pieces painted red or blue. Their dimensions are:

1. Height *h* and side lengths *a* and (*b - a*)
2. Height *h* and side lengths 2*a* and (*b - a*)/2
3. Height 2*h* and side lengths *a* and (*b - a*)/2

Winners

1. Pirannavan Ratnasingam
   19, Pulavanar road, Kalviyankadu, Jaffna
   Age - 25
   Faculty of medicine, University of Colombo

2. Sukri Hassan <sukrihassan@hotmail.com>
   077 167 5737

3. Rashmika Madushan Maththaka Gamage
   No.168/2 , Panaluwa , Watareka , Padukka
   Age - 24
   Sri Lanka Institute of Information Technology

4. A.M. Pavan Sameera Premathilaka (pavansameera96@gmail.com)
   Age: 24
   Sri Lanka Institute of Information Technology

5. Pitabeddara Vithanage Vindhya Chandramali Vithana
   116, Bope Road, Galle
   Age: 33
   M.Sc. in Mathematics Education, Department of Mathematics, University of Colombo

6. W.D.Emmanuel Hashika
   99/42A, Anderson lane, kudapaduwa, Negombo
   Maris Stella college, Negombo
   Age: 20
   Completed A/Ls in 2018

7. Hewa Vithanage Shashini Maduka
   Ukovita, G/ Udugama
   Age- 25 years
   Occupation- Government School Teacher

8. Yasiru Malshan Ranaweera
   70/8/K,Kottagoda Road, Hettiweediya, Weligama.
   Age: 26
   Occupation: Demonstrator at University of Sri Jayawardanepura, Faculty of Technology.