

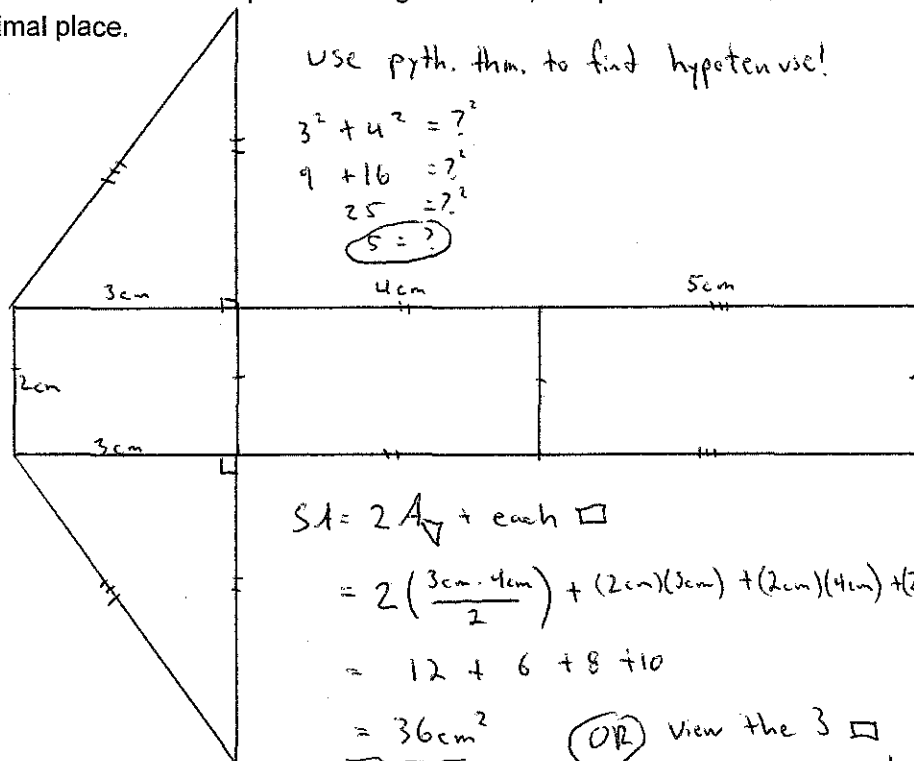
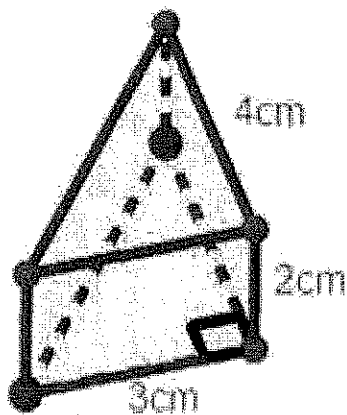
Name: Key

Block: Washod!

Surface Area 2 - Nets and Surface Area

Draw proportional nets for the following shapes. Appropriate measurements should be included for each side-length, with hash marks to indicate equal side-lengths. Then, compute the surface area of each shape to one decimal place.

(triangular prism)



Use pyth. thm. to find hypotenuse!

$$3^2 + 4^2 = ?^2$$

$$9 + 16 = ?^2$$

$$25 = ?^2$$

$$5 = ?$$

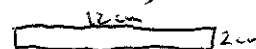
$$SA = 2A_{\triangle} + \text{each } \square$$

$$= 2 \left(\frac{3cm \cdot 4cm}{2} \right) + (2cm)(3cm) + (2cm)(4cm) + (2cm)(5cm)$$

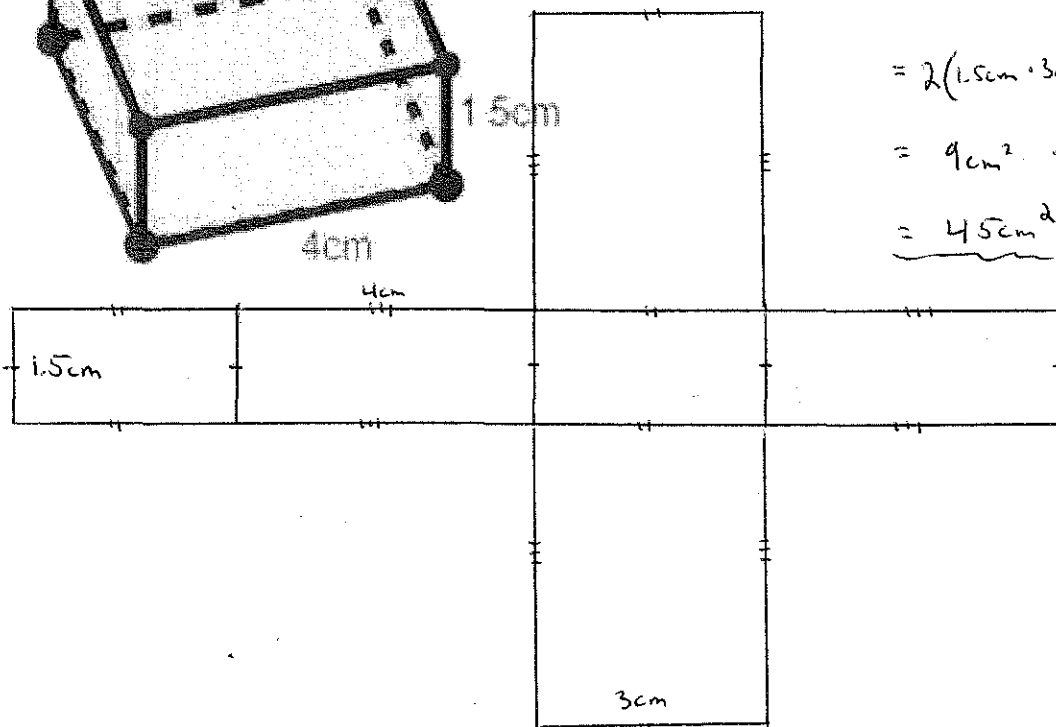
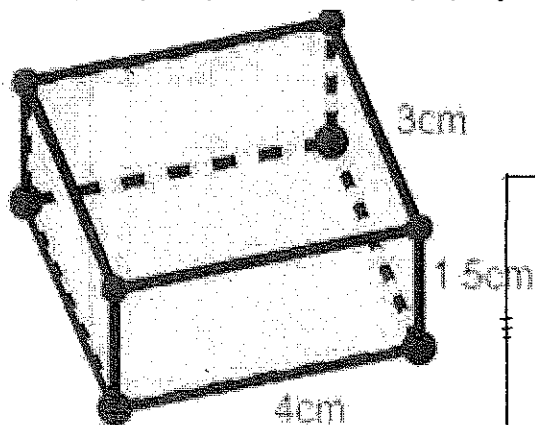
$$= 12 + 6 + 8 + 10$$

$$= \underline{36cm^2}$$

OR view the 3 \square as one long one!



(rectangular prism) Label all sides properly!



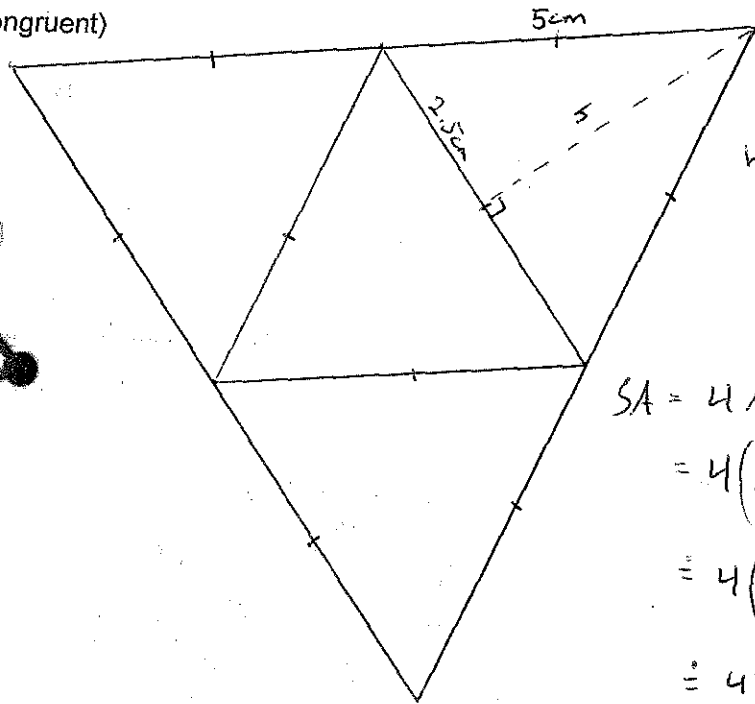
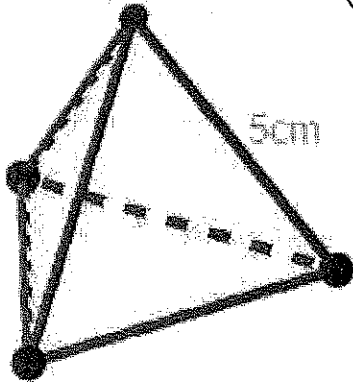
SA = 2 times each of the different rectangles

$$= 2(1.5cm \cdot 3cm) + 2(1.5cm \cdot 4cm) + 2(4cm \cdot 4cm)$$

$$= 9cm^2 + 12cm^2 + 24cm^2$$

$$= \underline{45cm^2}$$

(tetrahedron) (all faces congruent)

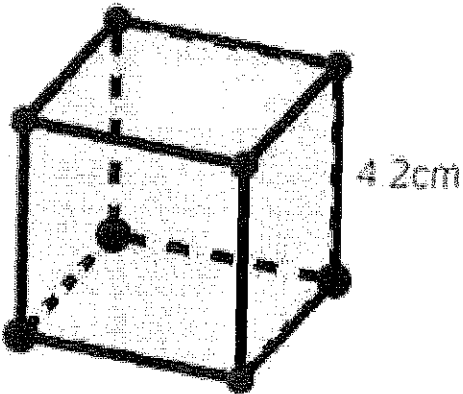


find height!

$$\begin{aligned} h^2 + 2.5^2 &= 5^2 \\ h^2 + 6.25 &= 25 \\ h^2 &= 18.75 \\ h &= \underline{4.33 \text{ cm}} \end{aligned}$$

$$\begin{aligned} SA &= 4 A_{\Delta} \\ &= 4 \left(\frac{bh}{2} \right) \\ &= 4 \left(\frac{5 \text{ cm} \cdot 4.33 \text{ cm}}{2} \right) \\ &= \underline{43.3 \text{ cm}^2} \end{aligned}$$

(cube)



$$\begin{aligned} SA &= 6 \text{ of the squares!} \\ &= 6 \cdot A_{\square} \\ &= 6 s^2 \quad \text{whoops!} \\ &= 6 (3 \text{ cm})^2 \\ &= \underline{54 \text{ cm}^2} \end{aligned}$$

whoops
105.84 cm²

whoops!

