

M8 Ch 4 Review

Measuring Prisms & Cylinders

Name _____
Blk _____

Polyhedron: A 3D shape w/ polygon faces

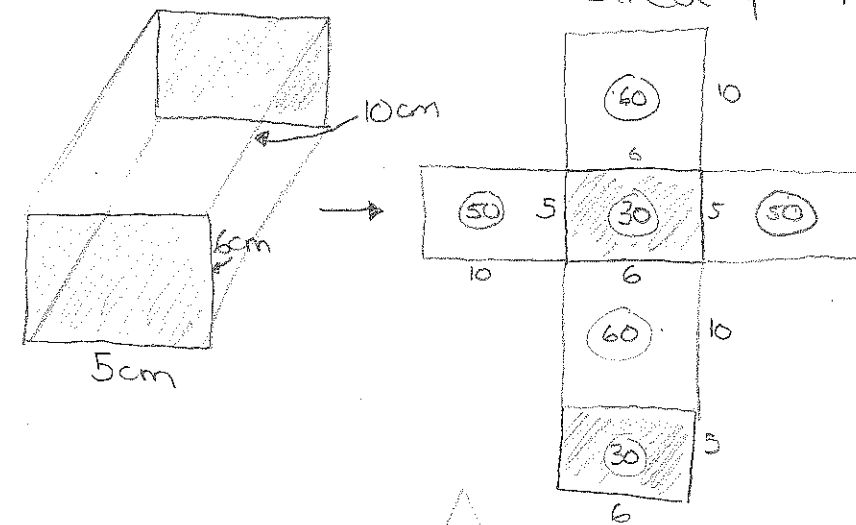
Prism: A polyhedron w/ 2 bases (top/bottom)

Pyramid: A polyhedron w/ 1 base (bottom)

Polyhedrons R named for the base shape

Nets: 'unfolded' models of polyhedrons

Surface Area → the area of all the surfaces

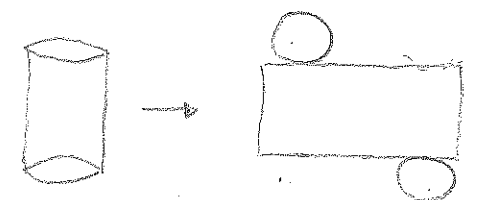
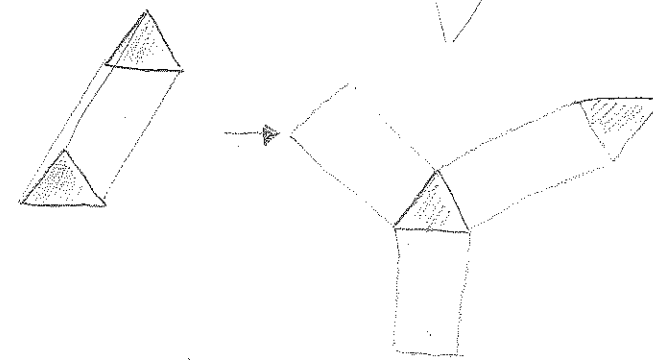
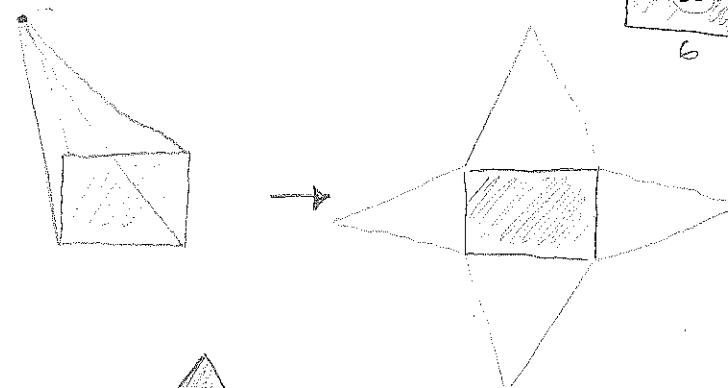


1) Calculate the area of all of the faces & bases

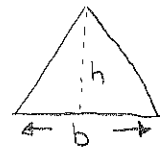
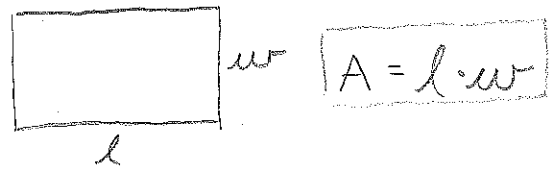
2) Add all the areas together to get the total surface area

$$30 + 30 + 50 + 50 + 60 + 60$$

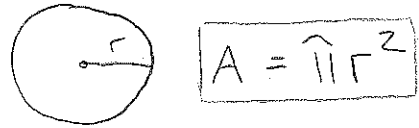
$$= 280 \text{ cm}^2$$



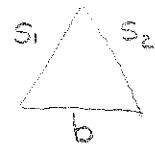
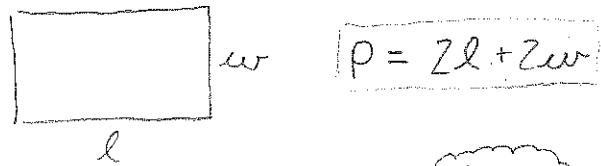
Area Review



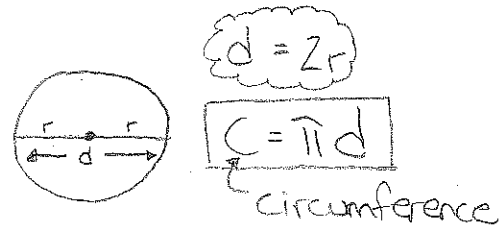
$$A = \frac{b \cdot h}{2} \text{ or } \frac{1}{2} b \cdot h$$



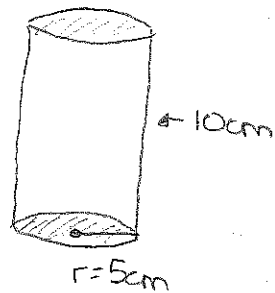
Perimeter Review



$$P = s_1 + s_2 + b$$



Volume: the total space an object occupies!
• calculate the area of the base and multiply by the height



$$\begin{aligned} 1) \text{ Area of base} &= \pi r^2 & \pi &= 3.14 & r &= 5 \\ &= (3.14)(25) & r^2 &= 5 \cdot 5 = 25 \\ &= 78.5 \text{ cm}^2 & & & & \text{cm} \cdot \text{cm} \end{aligned}$$

$$\begin{aligned} 2) \text{ height} &= 10 \text{ cm} \\ \text{Area of base} &= 78.5 \text{ cm}^2 \\ \text{Height} &= 10 \text{ cm} \\ \text{Volume} &= 78.5 \text{ cm}^2 \cdot 10 \text{ cm} = \boxed{785 \text{ cm}^3} \end{aligned}$$

HW

A
6, 7, 10

B
9, 11, 15

C
13, 14, 16