

April 21, 2015 ^{5th}
^{6th}

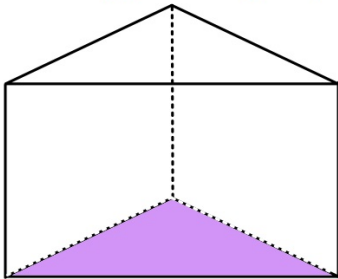
Catchup

4/21 - 3D Figures and Nets

Figures are named by using the **base shape** and then determining what is happening with the vertical sides.

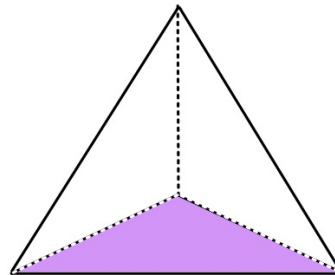
If the sides go straight up, it is a **prism**.

Triangular prism



If the sides go up to meet at a point, it is a **pyramid**.

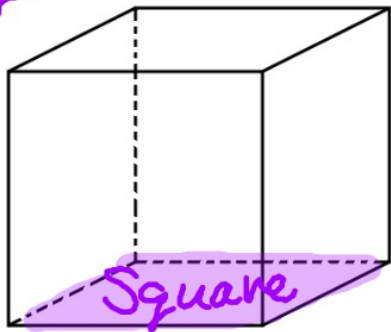
Triangular Pyramid



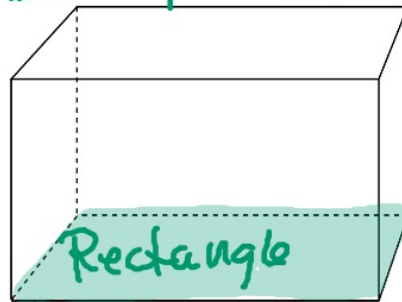
Dotted lines mean they cannot be seen from the given direction.

Find each base shape then name each figure.

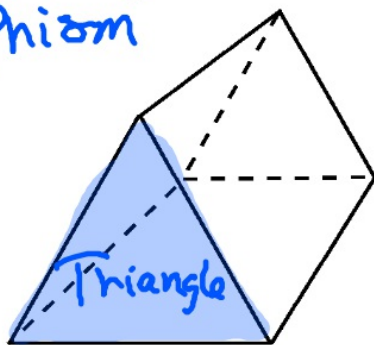
Square Prism



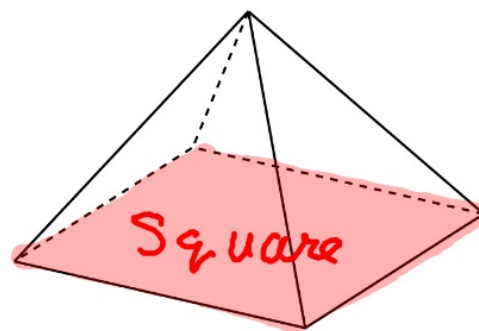
Rectangular Prism



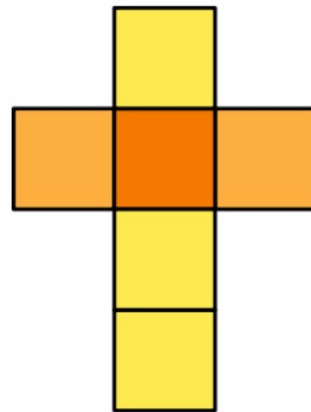
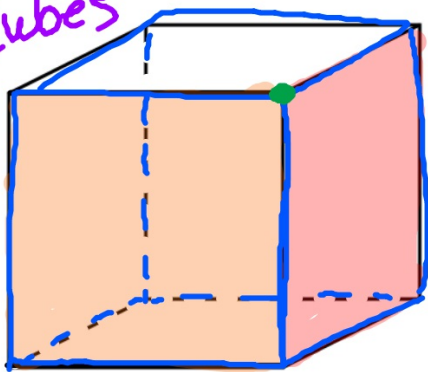
Triangular Prism



Square Pyramid



Cubes

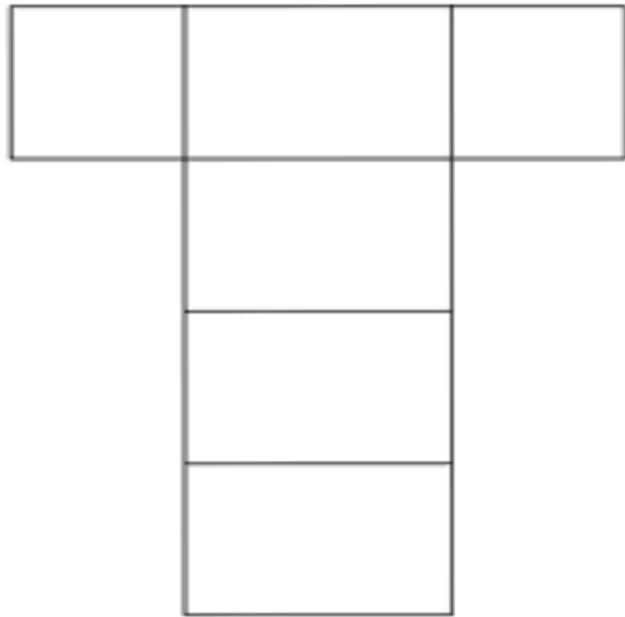
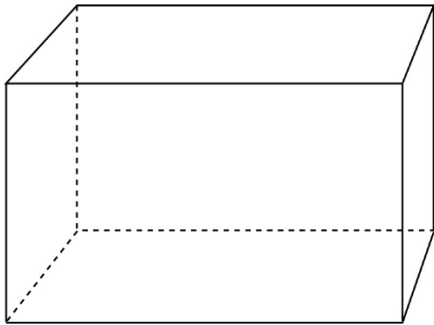


Faces: 6
flat surfaces

Edges: 12
line where faces meet

Vertices: 8
point where edges meet

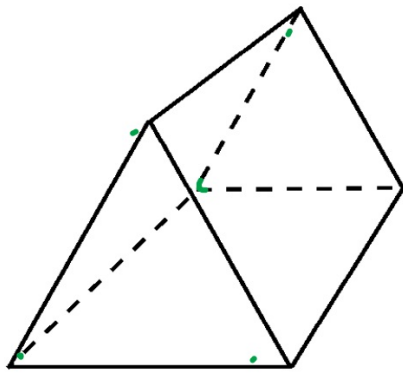
Draw a **net** for the figure
(a two-dimensional
representation of what it
would look like torn apart
and lying flat)



Faces: 6

Edges: 12

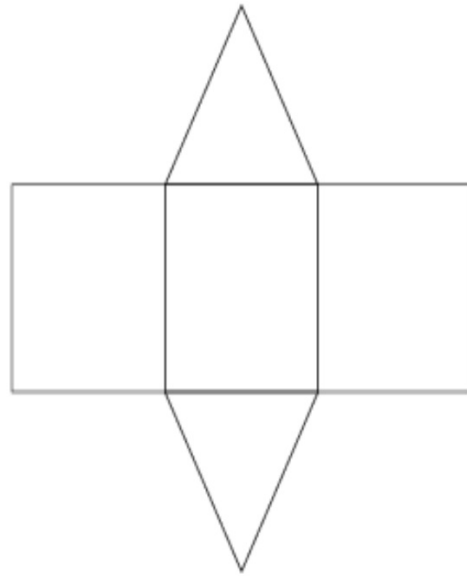
Vertices: 8

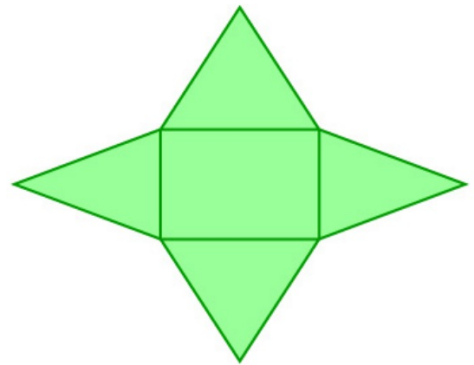
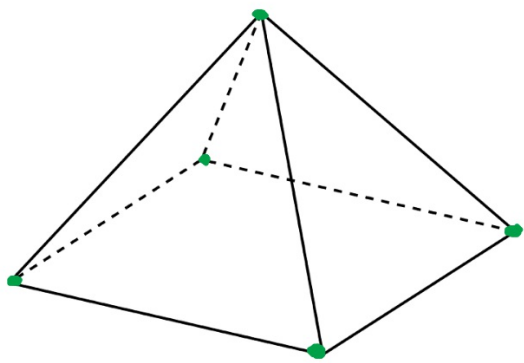


Faces: 5

Edges: 9

Vertices: 6



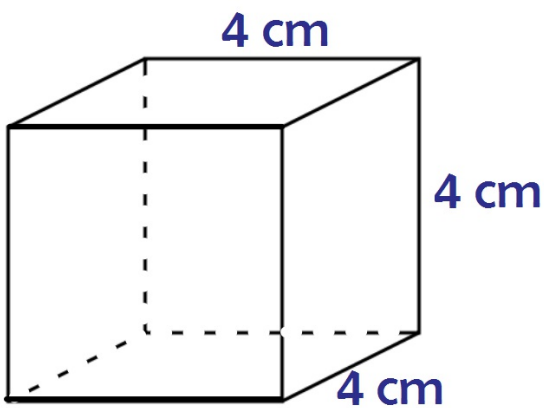


Faces: 5

Edges: 8

Vertices: 5

Find the **surface area** of each figure by finding the area of each surface (flat shape) and adding them up.



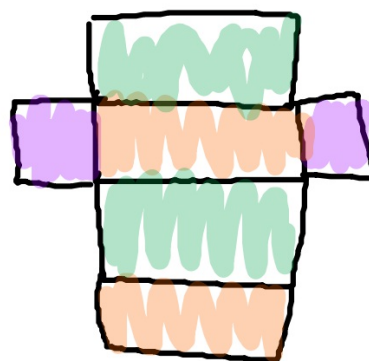
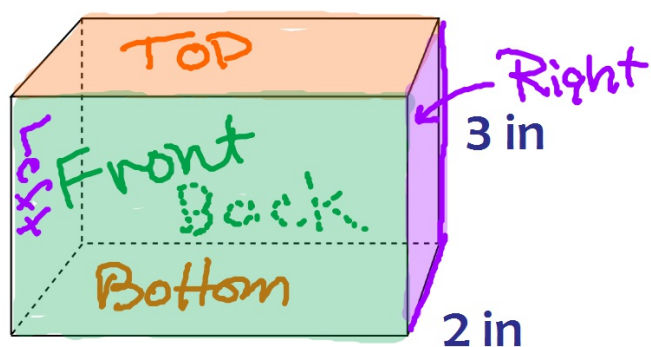
find area of all 6 sides
then add them up

6 squares

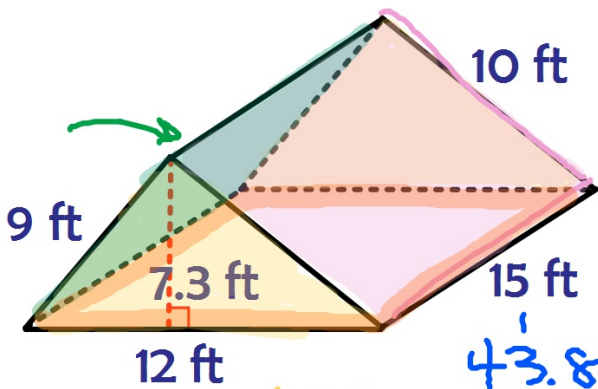
$$= 6 \times LW$$

$$= 6 \cdot 4 \cdot 4$$

$$= 96 \text{ cm}^2$$



$$\begin{aligned} T/B: LW &= 5 \cdot 2 = 10 \text{ in}^2 \\ F/B: LW &= 5 \cdot 3 = 15 \text{ in}^2 \\ R/L: LW &= 2 \cdot 3 = 6 \text{ in}^2 \\ \hline &31 \times 2 = 62 \text{ in}^2 \end{aligned}$$



△ : $\frac{1}{2}bh$

$= \frac{1}{2}(12)(7.3)$

$= \begin{array}{|c|} \hline 43.8 \\ \hline 43.8 \\ \hline \end{array}$

$\begin{array}{r} 43.8 \\ 43.8 \\ \hline 150.8 \\ 135 \\ \hline + 180 \end{array}$

552.6 ft^2

$\square = LW$
 $= 15 \cdot 10$
 $= 150$

$\square = LW$
 $= 15 \cdot 9$
 $= 135$

$\square = LW$
 $= 12 \cdot 15$
 $= 180$

Homework

Green WS³

Due