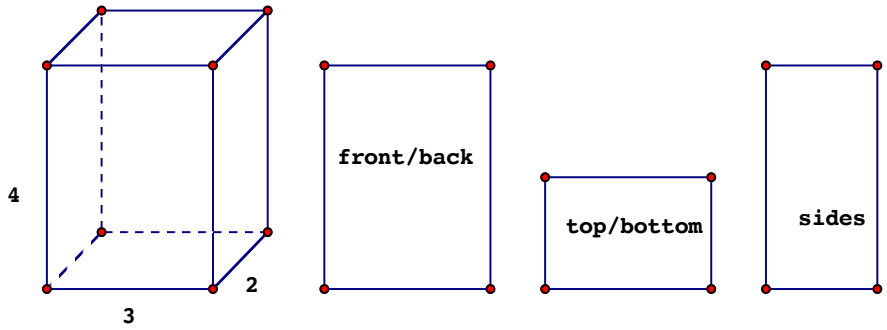
Surface Area

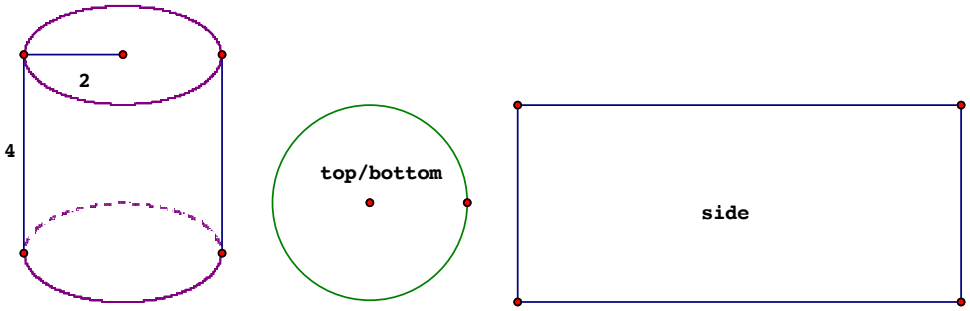
I. Any 3-D surface can be taken apart to find the total surface area. Just find the area of each piece and add. This rectangular prism is made of the surfaces shown next to it.



Label the dimensions of each rectangle and find the total surface area of the prism.

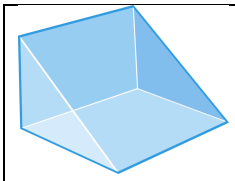
Shortcut formula: **S.A. = 2B + Ph**, (B = area of the base and P = Perimeter of the base.)

II. A cylinder is really two circles and a rolled-up rectangle. The height of the rectangle is the same as the cylinder's, and its width is what used to be the circumference.

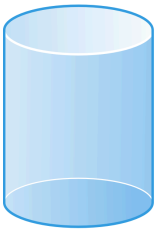


Label measurements on the circle and rectangle. Then find the total surface area of the cylinder by parts or with the formula from #1.

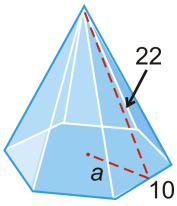
III. See the formula sheet for info on pyramids and cones. We'll talk about them.



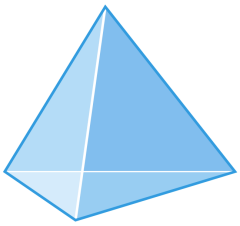
1. _____



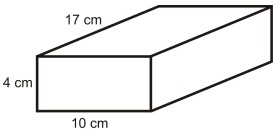
2. _____



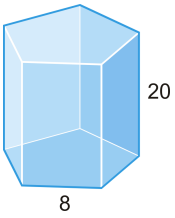
3. _____



4. _____



5. _____



6. _____

A. Cylinder

B. Cone

C. Tetrahedron or Triangular Pyramid

D. Triangular Prism

E. Rectangular Pyramid

F. Rectangular Prism

G. Square Prism

H. Pentagonal Pyramid

I. Pentagonal Prism

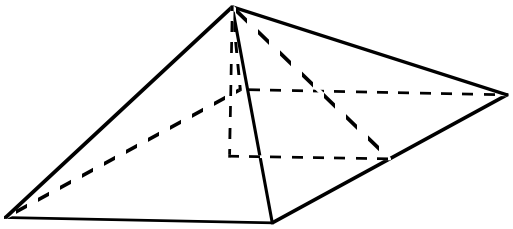
J. Hexagonal Pyramid

K. Hexagonal Prism

Find the total surface area of each object.

1.

square pyramid - height is 3.



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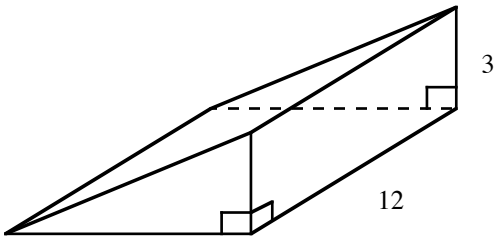
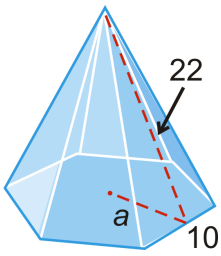
2.

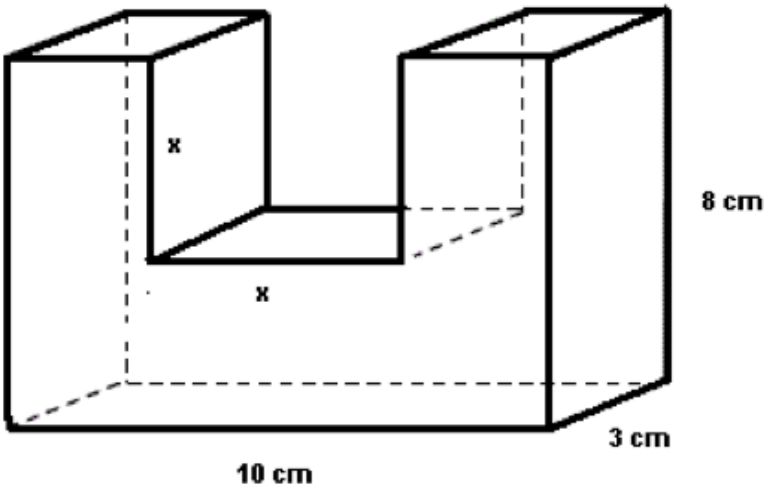


3. Regular hexagonal pyramid



4. Find the surface area of the model building.

(Use x = 5 cm.) You can use the prism formula or find the total of the areas of the ____ surfaces.



5. Identify the shape of each side below for finding the surface area and volume. Then find both.

Shapes for surface area:_____

Shapes for volume:_____