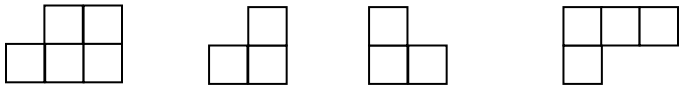
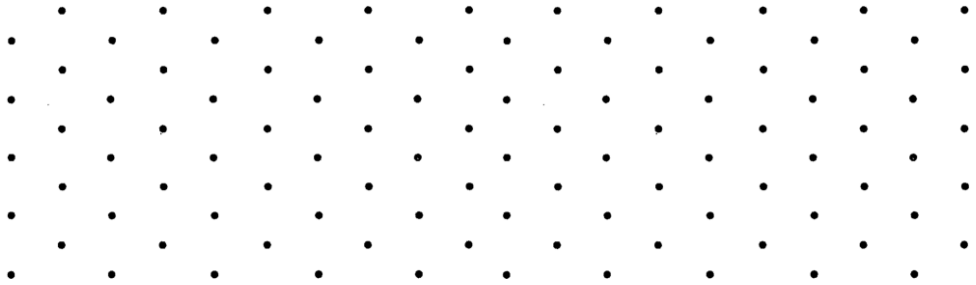
16.1

Draw the 3-D shape that has the given direct views.



Front view Right view Left view Top view from front



16.2

For an n-gon prism, determine the number of vertices, faces, and edges.

Vertices: _____ Faces: _____ Edges: _____

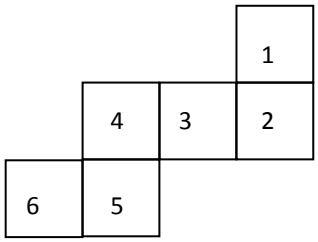
Demonstrate that your answers follow Euler's Formula.

16.3

Make a drawing of a right hexagonal prism.

Make a drawing of a polyhedron with 7 faces and 12 edges.

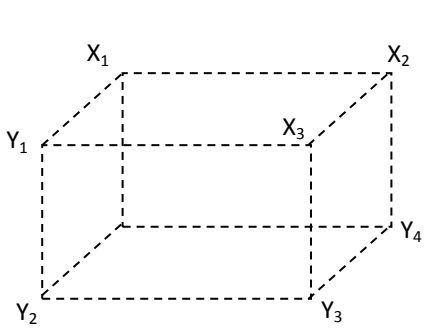
If the net were folded up to make a cube, which pairs of faces would be opposite each other?



_____ and _____ _____ and _____ _____ and _____

16.4

Sketch and label a chiral version of this "molecule."



16.5

Name two characteristics that the five regular polyhedra (platonic solids) have in common.

1)

2)

17.1

Fill in the blank to form a true statement.

a) A rectangle would be a square if:

_____

b) A trapezoid would be a parallelogram if:

_____

c) A parallelogram would be a rectangle if:

_____

17.2/17.3

Fill in the blank with the word "always," "sometimes," or "never." If a statement is sometimes true, sketch and label examples of when it is true and when it is not true.

a) A right triangle is _____ an obtuse triangle.

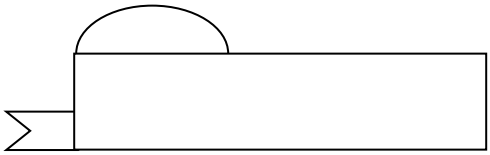
b) A parallelogram is _____ a rhombus.

c) A square is _____ a trapezoid.

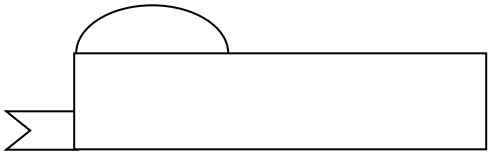
d) A scalene triangle is _____ a right triangle.

18.1

Add to the following design so that it has a reflection symmetry. Draw in the line of symmetry.

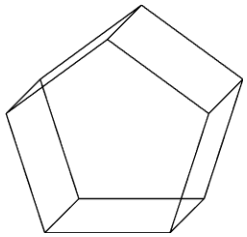


Now, add to the original design so that it has a rotational symmetry. Show the center of rotation.



18.2

Consider this right regular pentagonal prism. You may add to the drawing and/or include labels to help you with the required descriptions.



How many total reflection symmetries does the figure have? _____

Describe ONE plane of symmetry.

How many distinct rotational symmetries does the figure have? _____

Describe ONE axis of rotational symmetry and name the degrees of rotation for that axis.

Degrees of rotation: _____