| 16.1 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: |
| |
| 16.2/16.3 |
| 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. |

| 17.1 Draw the 3- | D sha | ipe t | hat l | has t | the g | give | n dir | ect | vie | ws. | | | | | | | |
|-------------------------|----------------------------|--------|-------|-------|-------|---------------------------------------|-------|--------|---------------------------------------|-------|---------|---------------------------------------|--------|-------------|---------------------------------------|---|------|
| | | | | | | | | | | | | | | | | | |
| | Froi | nt vie | w. | Rig | ght v | iew | Le | eft vi | iew | | Тор | view | / fror | n fro | nt | | |
| 17.2 For an n-go | • • • • n pris | | · | · | e the | · · · · · · · · · · · · · · · · · · · | · | · | • • • • • • • • • • • • • • • • • • • | rtice | · · · · | · · · · · · · · · · · · · · · · · · · | · | • • • | • • • • • • • • • • • • • • • • • • • | • | |
| Vert | ices: | | | | - | F | aces | s: | | | | | Ed | lges | : | | |
| Demonstrat | e that | you | ır an | swe: | rs fo | ollov | v Eu | ıler' | 's F | orm | ula. | | | | | | |
| 17.3 | | | | | | | | | | | | | | | | | |
| Make a drav | wing | of a | righ | t he | xago | onal | pris | m. | | | | | | | | | |

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?

4 3 2 6 5

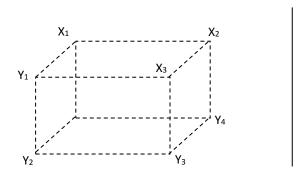
_____ and ____

____ and ____

____ and ____

17.4

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



17.5

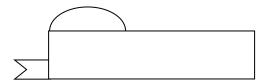
Name two characteristics that the five regular polyhedra (platonic solids) have in common.

1)

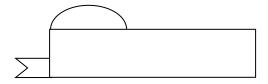
2)

| 18.1 |
|------|
|------|

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



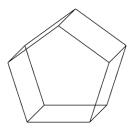
Now, add to the original design so that it has a rotational symmetry. Show the center of rotation.



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:

19.1

On graph paper, show that all five of the tetrominoes will tessellate the plane.