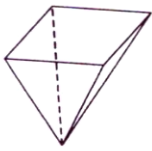


1. For each polyhedron shown below complete the descriptions (fill in the blanks).



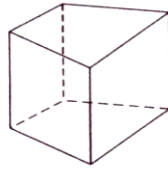
a.

name _____

of faces _____

of vertices _____

of edges _____



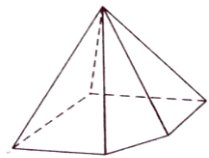
b.

name _____

of faces _____

of vertices _____

of edges _____



c.

name _____

of faces _____

of vertices _____

of edges _____

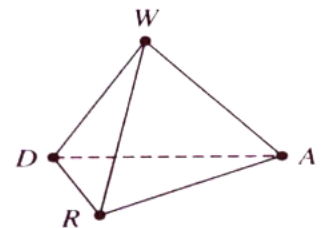
2. For the tetrahedron pictured at the right:

(a) Why would it be classified as a tetrahedron?

(b) What shape polygon are the faces? (are they all the same?)

(c) What is the intersection of face DWA with face DAR?
(be sure to include the type of geometric object this is)

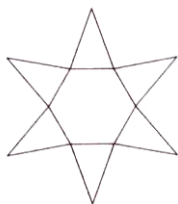
(d) What is the intersection of face WRA with edge DR?



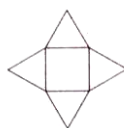
3. Indicate whether each statement is true or false by circling the correct choice.

- | | | |
|------|-------|---|
| True | False | 1. The net of a triangular prism consists of 3 triangles and 3 rectangles. |
| True | False | 2. Cones and cylinders are classified as polyhedral. |
| True | False | 3. The net of a cylinder consists of 2 circles and 1 rectangle. |
| True | False | 4. The net of a cube (square prism) consists of 4 squares. |
| True | False | 5. The height from base to apex of a pyramid is the same as the height of the triangular faces. |
| True | False | 6. There is more than one possible net for any rectangular prism (box-shape). |
| True | False | 7. If two lines do not intersect, then they must be parallel. |
| True | False | 8. If two angles are vertical angles, then they must be congruent. |
| True | False | 9. There is no such thing as a right equilateral triangle. |

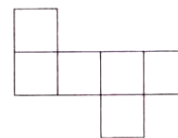
4. Name the polyhedron that each net produces. (specific name, not number of sides)



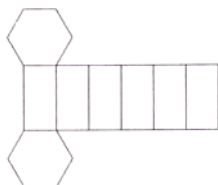
a. _____



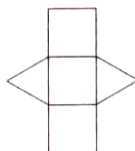
b. _____



c. _____



d. _____

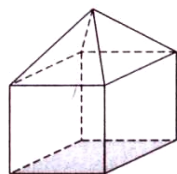


e. _____



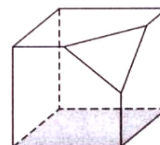
f. _____

5. For each 3-D figure below, state the number of vertices (V), faces (F), and edges (E) and then determine whether the formula $V + F = E + 2$ holds true for the figure. (show your computation of the formula).



a. $V =$ _____
 $F =$ _____
 $E =$ _____
Compute formula:

Does the formula work in this case?



b. $V =$ _____
 $F =$ _____
 $E =$ _____
Compute formula:

Does the formula work in this case?

7. The following figure represent a card attached to a wire, as shown. Imagine revolving the wire and the card creating a solid object that is the shape of its path as it revolves. (a) sketch the 3-D object created and (b) give the geometric name of the object created.



a.



b.

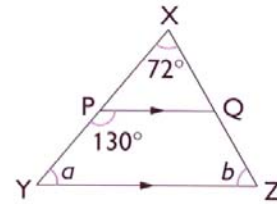


c.

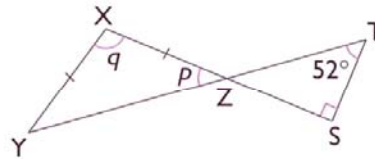


The following figures are not drawn to scale.

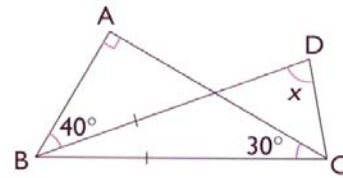
1. XPY and XQZ are straight lines.
 $PQ \parallel YZ$
 Find $\angle a$ and $\angle b$.



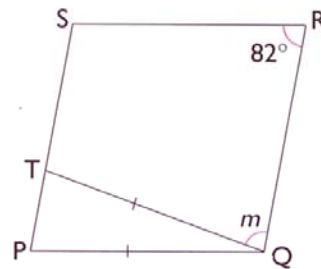
2. XZS and YZT are straight lines.
 $XY = XZ$
 Find $\angle p$ and $\angle q$.



3. ABC is a right-angled triangle.
 BCD is an isosceles triangle.
 $BC = BD$
 Find $\angle x$.



4. $PQRS$ is a parallelogram.
 $PQ = TQ$
 Find $\angle m$.



5. $EFGH$ is a parallelogram.
 $FG = FH$
 Find $\angle h$.

