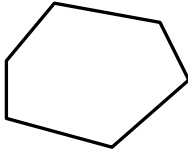


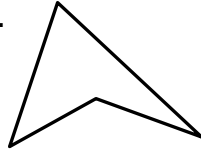
Geometry Levels: Level 2

1. Find the interior angle sum of each of the following polygons. Show your work.

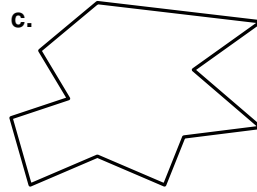
a.



b.



c.



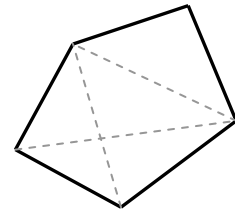
d. 35-sided polygon

2. Freddy wanted to find the interior angle sum of the polygon shown, but made a mistake! Look at his work and then explain what he did wrong.

First I cut up the polygon into triangles.

Since there are 5 triangles, I multiplied 5 times 180° .

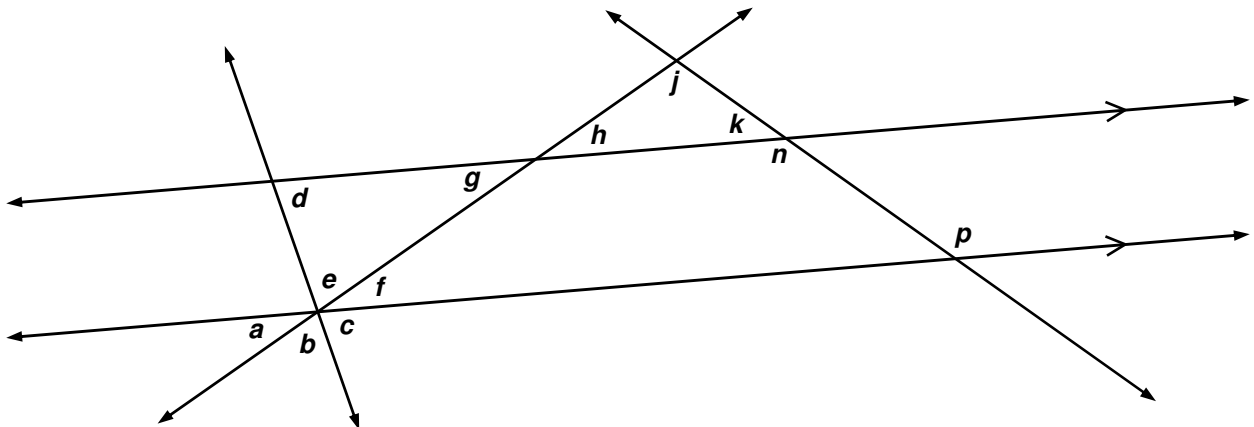
$$5 \times 180^\circ = 900^\circ$$



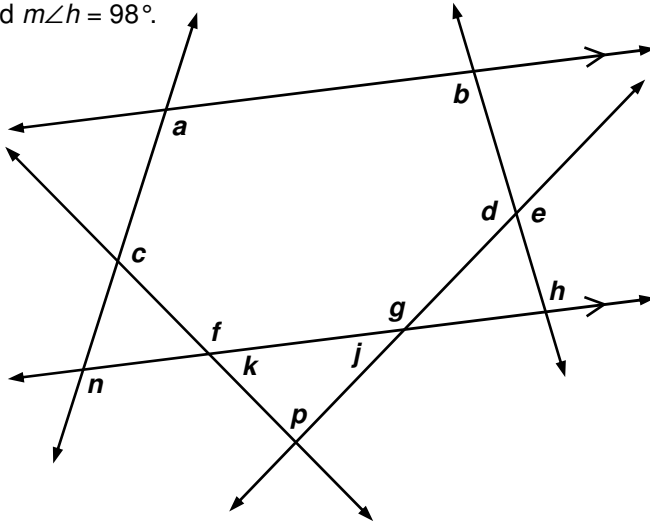
Answer the rest of this assignment on your POD paper.

For each diagram, make a Statements/Reasons table and list how you determined each angle.

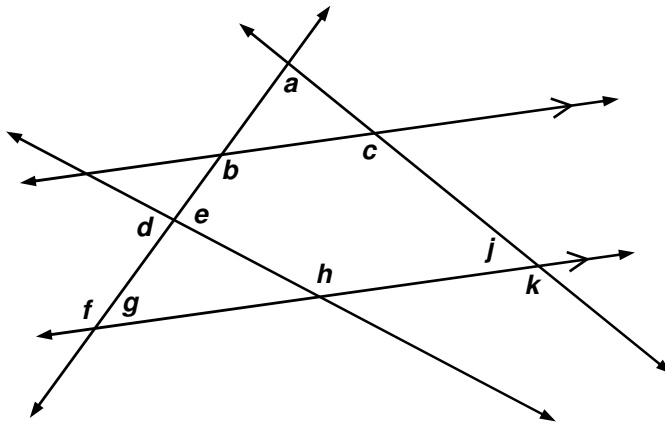
3. Find the missing angle measures if $m\angle b = 74^\circ$, $m\angle c = 76^\circ$, and $m\angle p = 140^\circ$.



4. Find the missing angle measures if $m\angle n = 112^\circ$, $m\angle k = 37^\circ$, $m\angle p = 84^\circ$, $m\angle e = 122^\circ$, and $m\angle h = 98^\circ$.



5. Find the missing angle measures if $m\angle d = 89^\circ$, $m\angle f = 114^\circ$, and $m\angle k = 122^\circ$.



6. Find the missing angle measures if $m\angle n = 42^\circ$ and $m\angle f = 59^\circ$.

