History of Mathematical Ideas
Quiz 3

Name:_____

You have 10 minutes to complete this quiz. If you have a question raise your hand and remain seated. In order to receive full credit your answer must be **complete**, **legible** and **correct**. Show your work, and give adequate explanations.

1. Define the "defect" of a polyhedron at a vertex.

The defect at a vertex v is 360°-(sum of the face angles meeting at v)

2. Compute the defect of a regular dodecahedron at one of its vertices.

There are three pentagons that meet at a give vertex of a regular dodecahedron. Each face angle is $(180° - (360°/5)) = 108°$. Therefore the defect at a given vertex is $(360° - 3 \cdot 108°) = 36°$.