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Diagram 1

Polygon and Point can have a variety of relationships:

Case 1: A polygon has many points, but a point only belong to 1 polygon. This definition would not allow a point to be shared between two polygons.

Case 2: A polygon has many points and a point can belong to many polygons. This definition would allow a point to be shared between two polygons. Therefore, it makes a difference whether a point can be shared or not.

A diagram of a diagram

Description automatically generated

Diagram 2: Two triangles with a common side. Draw an object diagram

Constraint: A point object only belongs to a single polygon (Case 1)

A diagram of a triangle and polygon

Description automatically generated

Diagram 3: Diagram 2: Two triangles with a common side. Draw an object diagram

Constraint: A point can belong to more than one polygon (Case 2)

A diagram of a network

Description automatically generated

Diagram 4: Activity diagram for computing a restaurant bill. Charge for each item delivered, total subject to tax, service charge 18% applied to groups of 6 or more, smaller groups have blank entry option for gratuity, coupon or gift certificates should be subtracted.

