

Question 4:

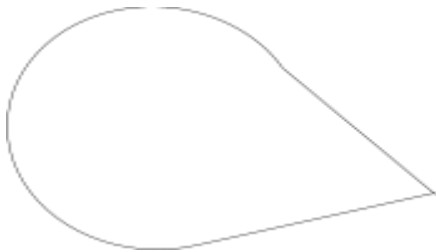
a) Intersect

The intersect operation will output only the greyish sector that overlaps both the triangle and the circle. The attribute table will have attributes from both input features



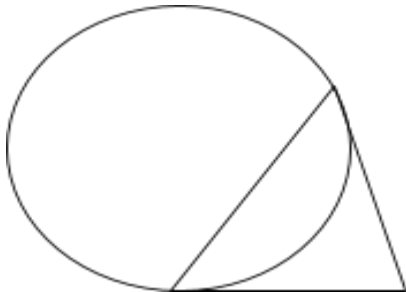
b) Merge

Merge combines data from multiple sources to create a new output dataset. Attributes from both input datasets will be merged



c) Union

The Union operation will preserve both the circle and triangle features. The attribute table will contain properties from both input features



Question 7:

a) Image Metadata

```
{  
    'driver': 'JP2OpenJPEG',  
    'dtype': 'uint16',  
    'nodata': None,  
    'width': 10980,  
    'height': 10980,  
    'count': 1,  
    'crs': CRS.from_epsg(32636),  
    'transform': Affine(10.0, 0.0, 600000.0, 0.0, -10.0, 100020.0)  
}
```