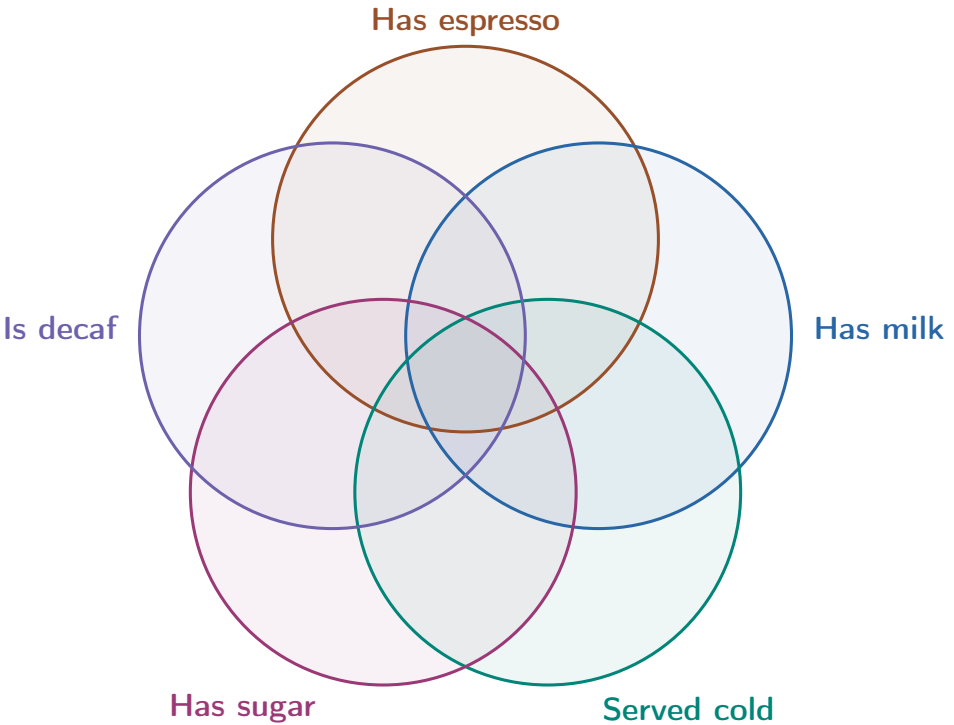
Five overlapping circles

Circle-only construction / 21 interior regions (maximum)



All 31 regions cannot be obtained with five circles.

Each pair of circles intersects at most twice. Five circles therefore divide the plane into at most $5(5-1)+2 = 22$ regions, including the exterior.