**3D The Normal Normal Distribution (Z Distribution)**

1. The random variable $X\~N(50,4^{2})$. Write in terms of $Φ(z)$ for some value $z$:
2. $P(X<53)$
3. $P(X\geq 55)$
4. The systolic blood pressure (pressure when the heart beats) of an adult population, $S mmHg$, is modelled as a normal distribution with mean 127 and standard deviation 16.

A medical researcher wants to study adults with blood pressures higher than the 95th percentile. Find the minimum blood pressure needed for an adult to be included in her survey