The maximum weight that an elevator in an apartment complex can accommodate=800kg

Considering n=10, mean= 70 kgs , variance = 200, sd=14.14

So,

Using R

> z\_10=(800-(10\*70))/(sqrt(10)\*14.14)

> z\_10

[1] 2.236406

> p\_10=1-pnorm(q=z)

> p\_10

[1] 0.7929272

>

>

>

> z\_12=(800-(12\*70))/(sqrt(12)\*14.14)

> z\_12

[1] -0.8166199

> p\_12=pnorm(q=z)

> p\_12

[1] 0.2070728