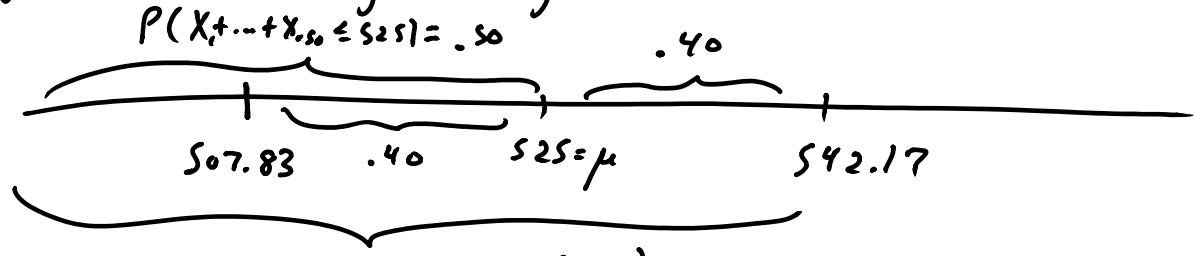


Example continued X_1, \dots, X_{150} independent Normal random variables, each with mean 3.5 and variance 1.2.

Showed $P(X_1 + \dots + X_{150} \leq 542.17) = .90$.

Now find an interval, centered at the mean = $150(3.5) = 525$,
 So that $X_1 + \dots + X_{150}$ is in the interval with probability .80.

We have essentially already done the necessary work.



$$525 - (542.17 - 525) = 507.83$$

$$P(\text{Prob}(X_1 + \dots + X_{150} \leq 542.17) = .90$$

Desired interval is
 $[507.83, 542.17]$.