

Q.2 $\sigma = 100$, $n = 25$, $\bar{x} = 520$.

$\Rightarrow \bar{x} \pm Z_{\alpha/2} \cdot \frac{\sigma}{\sqrt{n}}$

where $\alpha = 0.20$

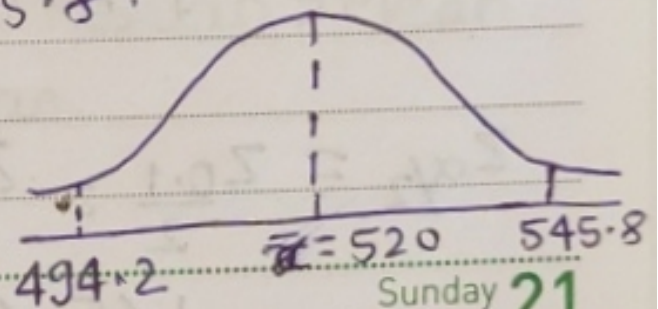
Now,

$Z_{\frac{0.20}{2}} = \frac{0.5398}{1.29}$

Lower fence:
 $\Rightarrow 520 - \frac{0.5398 \times 100}{\sqrt{25}}$

2) Lower fence: $- 520 - \frac{1.29 \times 100}{\sqrt{25}} = 494.2$

\Rightarrow Higher fence: $= 545.8$



Sunday 21
Week 33 - 234-132

July 2016

M	T	W	T	F	S	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

August 2016

M	T	W	T	F	S	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

September 2016

M	T	W	T	F	S	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

Q.3 $n = 250$, $x = 170$, $\alpha = 0.1$

(a) $H_0 =$ city ABC owns vehicle 60% or less
 $H_1 =$ city ABC more vehicle.

$$\hat{p} = \frac{x}{n} = \frac{170}{250} = 0.68$$

$$q_0 = 1 - p_0 = 1 - 0.6 = 0.4$$

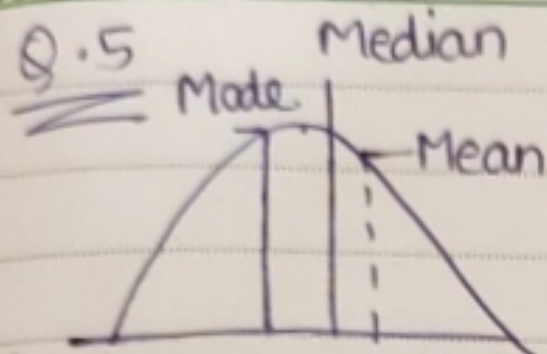
$$Z_{\text{test}} = \frac{\hat{p} - p_0}{\sqrt{\frac{p_0 q_0}{n}}} = \frac{0.68 - 0.6}{\sqrt{\frac{0.6 \times 0.4}{250}}} = 2.58.$$

$$Z_{\alpha/2} = Z_{\frac{0.1}{2}} = Z_{0.05} = 1.65$$

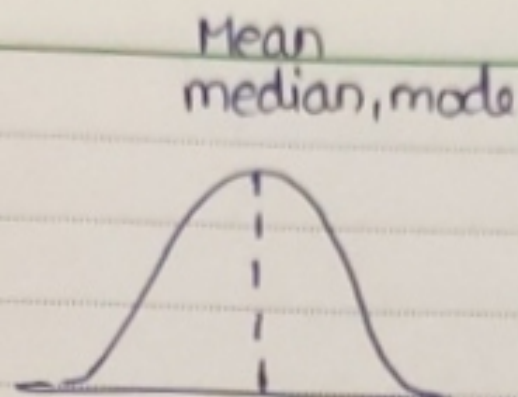
$1.65 < 2.58$; accept null hypothesis.

2016

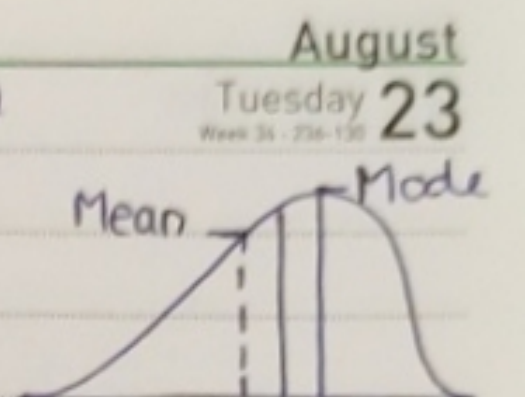
Q.5



Right skewed



Normal Distribution



Left skewed.

\Rightarrow Right skewed \Rightarrow Mean $>$ Median $>$ Mode.

- Rich people in India

\Rightarrow Normal distribution: mean \approx median \approx mode

- ~~Age~~ Age of student in class

\Rightarrow Left skewed: mode $>$ Median $>$ Mean.

- Age of human.

August

Tuesday 23

Week 34 - 236-130