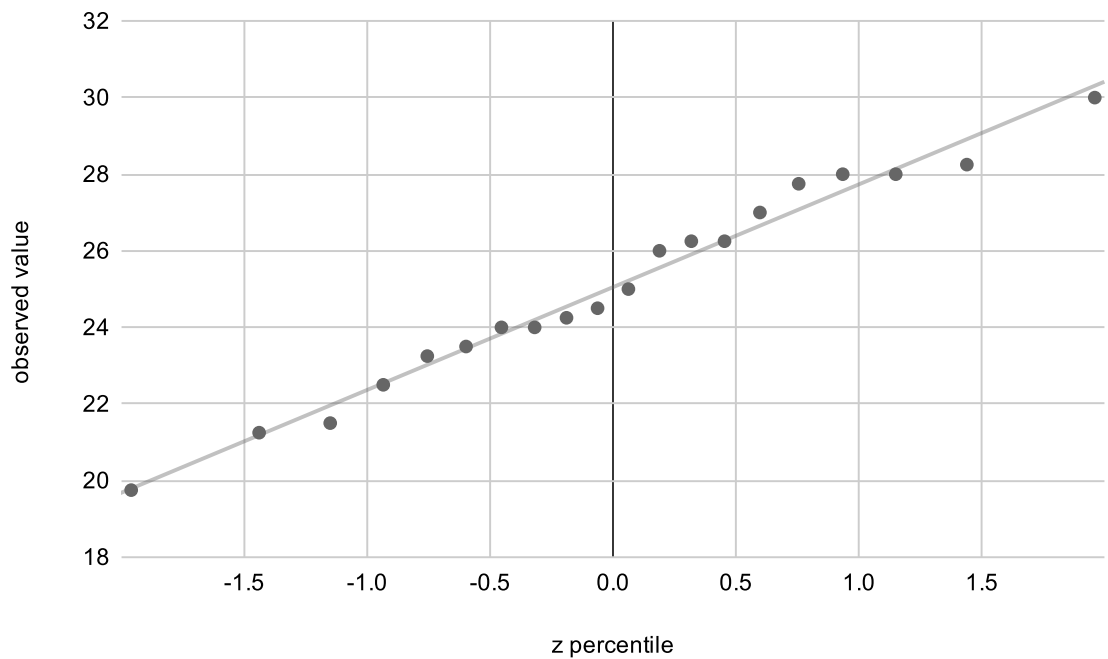


SAMPLE	$PCT = 100 * ((ROW(\\$A1) - 1) - 0.5) / 20$	$ZPCT = NORMINV(\\$B1/100, 0, 1)$	
19.75	2.5	-1.959963986	
21.25	7.5	-1.439531472	
21.5	12.5	-1.150349381	
22.5	17.5	-0.9345892912	
23.25	22.5	-0.7554150257	
23.5	27.5	-0.5977601266	
24	32.5	-0.4537621904	
24	37.5	-0.3186393636	
24.25	42.5	-0.1891184262	
24.5	47.5	-0.062706778	
25	52.5	0.062706778	
26	57.5	0.1891184262	
26.25	62.5	0.3186393636	
26.25	67.5	0.4537621904	
27	72.5	0.5977601266	
27.75	77.5	0.7554150257	
28	82.5	0.9345892912	
28	87.5	1.150349381	
28.25	92.5	1.439531472	
30	97.5	1.959963986	



Q5 (EX 34, PG 407)

STAT 3093, ASS#4
ALBERT LOCKETT
3254354, KY4IFEUMBA

b) $\bar{X} = 25.05$

$\alpha = 0.05$

$S = 2.690$

$t_{0.05/2, 20-1} = 1.729$

$n = 20$

$$CI = \bar{X} \pm t_{\alpha/2, n-1} \frac{s}{\sqrt{n}}$$

$$25.05 \pm 1.729 \left(\frac{2.690}{\sqrt{20}} \right) = \underline{(24.01, 26.09)}$$

c) The students are better than the average
(21) based on these ACT scores.

90% CI:

$\alpha = 0.1, t_{0.1/2, 20-1} = 1.318$

$$25.05 \pm 1.318 \left(\frac{2.690}{\sqrt{20}} \right) = \underline{(24.26, 25.84)}$$