Checked Date

(28) between 249 and 275

Histograms :

1st one : point arrow to 0 (shade is correct)

2nd one : Arrow on 0.524
(shade the right side)

(29) $P_{63} = 0.63 \rightarrow z = 0.332$

$$0.332 = \frac{x - 1049}{202}$$

SAT score $\Rightarrow$ $x = 1116.1$ //

ACT score $\Rightarrow$ $0.332 = \frac{x - 21.6}{4.4}$

$x = 23.1$ //

$$p = \frac{1413 - 1049}{202}$$

$$= 1.802$$

$$\cdot Z_{SAT} = \frac{1413 - 1049}{202} = 1.80198$$

$$P(Z_{SAT} \leq 1.80198) = 0.9641$$

$$0.9641 = \frac{X_{ACT} - 21.6}{4.4}$$

$$X_{ACT} = 25.84$$

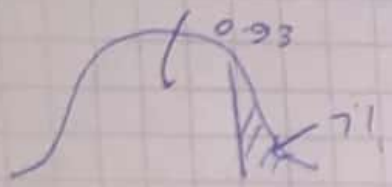
$$\text{ACT score} = \underline{\underline{25.8}}$$

(18) $0.6 \Rightarrow 0.253$

$$0.253 = \frac{x - 110.8}{68.2}$$

$$x = 128.1$$

(24)



p-value = 0.93 $\rightarrow$ $z = 1.476$

a) $1.476 = \frac{x - 55}{7}$

$x = 65.3$ inches

b) $P(x < 55) = P\left(z < \frac{55 - 55}{7}\right)$

$= P(z < 0)$

$= 0.500$

(25)

$$P(x < 137.9) = P\left(z < \frac{137.9 - 137.7}{4.8}\right)$$

$$= 0.04167$$

probability = 0.5167

(b) $$P(x < 137.9) = P\left(z < \frac{137.9 - 137.7}{4.8/\sqrt{188}}\right)$$

$$= 0.5713$$

probability = 0.7161

(22) $P(X > 537.2) = P\left(Z > \frac{537.2 - 504}{106}\right)$

$= 1 - P(Z < 0.3132)$

$= 1 - 0.623$

$= 0.3770$ //

$P(X > 537.2) = P\left(Z > \frac{537.2 - 504}{106/\sqrt{20}}\right)$

$= 1 - P(Z < 1.4007)$

$= 0.0807$ //

* 2nd answer