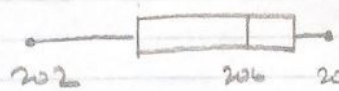
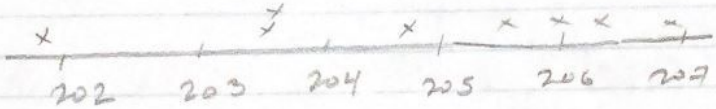
1) a) 1.796
b) 2.447
c) 63.657
d) 2.048

7) 


$204.999 + \ldots + 205.831 / 9 = 205.127$

$\sqrt{204.999^2 + \ldots + 205.831^2 / 8} = 1.72$

$205.127 \pm (2.306)\left(\frac{1.72}{\sqrt{9}}\right) = 205.127 \pm 1.32$

203.807 and 206.447

8) a) $3410.14 \pm (2.365)\left(\frac{1.018}{\sqrt{8}}\right)$

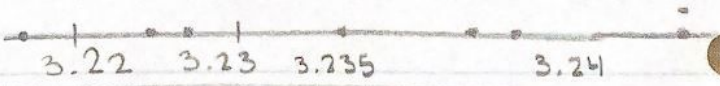
$3410.14 \pm 0.85$

3409.29 and 3410.99

b) $3410.14 \pm (2.998)\left(\frac{1.018}{\sqrt{8}}\right)$

$3410.14 \pm 1.08$

3409.06 and 3411.22

9) a) 

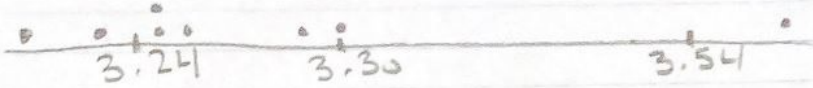

b) $\sqrt{\frac{1}{7}(3.236 - 3.2386)^2 + \ldots + (3.230 - 3.28)^2}$

$= 0.0113$

$3.2386 \pm (3.499)\left(\frac{0.0113}{\sqrt{8}}\right)$

$3.2386 \pm 0.0140$

3.2246 and 3.2526

c) 


d) There is no outlier so it should not be used.

11) $t_{5, 0.05} = 2.015$

$2.03 \pm (2.015)\left(\frac{0.040}{\sqrt{6}}\right)$

$2.03 \pm 0.074$

1.956 and 2.104

1) $750 - 620 \pm 1.96\sqrt{\frac{20^2}{80} + \frac{30^2}{95}}$

$(122.54, 137.46)$

3) $31.1 - 30.4 \pm 2.58\sqrt{\frac{0.6^2}{1559} + \frac{0.2^2}{1924}}$

$0.7 \pm 0.0407$

$(0.6591, 0.7409)$

9) $242 - 220 \pm 1.96\sqrt{\frac{20^2}{47} + \frac{31^2}{42}}$

$= 22 \pm 10.982$

$(11.018, 32.982)$

11) a) $91.1 - 90.7 \pm 1.96\sqrt{\frac{6.23^2}{50} + \frac{4.34^2}{40}}$

$0.4 \pm 2.129$

$(-1.729, 2.529)$

b) No because zero is in the confidence interval. There is no connection.