# Answer of 14 by Xu Min

NINE

- 1.

$$t_{0.975}(19) = 2.2622$$

$$\frac{\overline{x} - 60}{14.4/\sqrt{10}} = 0.351 < 2.26622$$

*Accept.*

- 2.

$$\overline{x} = \frac{1}{6}(52.66 + ... + 51.037) = 51.14, s^2 = 1.099$$

$$t_{0.975}(5) = 2.5706$$

$$\frac{\overline{x} - 52.5}{\sqrt{1.099}/\sqrt{6}} = -3.17 < -2.5706$$

$Refused.$

- 3.

$$z_{0.995} = 2.57$$

$$\frac{\overline{x} - \mu}{\triangle/\sqrt{9}} = 1.5 < 2.57$$

*Accept.*

- 4.

$$\chi^2_{0.975}(14) = 26.119, \chi^2_{0.025}(14) = 5.629$$

$$w = \frac{(n-1)s^2}{\sigma^2} = \frac{14 * (0.025)^2}{0.0004} = 21.875$$

$$\chi^2_{0.025}(14) < w < \chi^2_{0.975}(14) = 26.119$$

*Accept*.

- 5.

$$w = \frac{(n-1)s^2}{\sigma^2} = 15.68$$

$$W > \chi^2_{0.95}(8) = 15.507$$

$Refused$.

- 7.

$$\overline{x} = \frac{1}{10}(42 + ... + 55) = 62.4, s^2 = 109.64$$

$$\chi^2_{0.95}(9) = 16.919$$

$$w = \frac{(n-1)s^2}{\sigma^2} = 12.33$$

*Accept*.