

Lesson 9

12.44 $\hat{y} = 16.51 + .162x$
 $se = 46.64$
 $\sum x = 89$

$\bar{x} = 17.8$
 $\sum x^2 = 1833$
 $SS_{xx} = 248.8$
 $n = 5$

$t_{0.025, 3} = 3.182$
 $x = 20$
 $16.51 + .162(20) = 19.75$

$19.75 \pm 3.182(46.64) \sqrt{\left(\frac{1}{5} + \frac{(20-17.8)^2}{248.8}\right)}$
 $19.75 \pm 148.4 \cdot 1.219$
 19.75 ± 69.524

$89.274 \leq x_{20} \leq -49.774$

12.46 $\hat{y} = -46.29 + 15.24x$
 $se = 70969.198$
 $\sum x = 199.5$
 $\bar{x} = 24.938$

$SS_{xx} = 2692.1$
 $n = 8$

$t_{0.025, 6} = 2.447$
 $x = 25$
 $15.24(25) - 46.29$
 331.71

$331.71 \pm 2.447(70969.198) \sqrt{\left(\frac{1}{8} + \frac{(25-24.938)^2}{2692.1}\right)}$
 $331.71 \pm 173661.6275 (1.125)$
 $331.71 \pm 173661.6275 (.354)$
 331.71 ± 61476.22

$61807.93 \leq x_{25} \leq -61144.51$