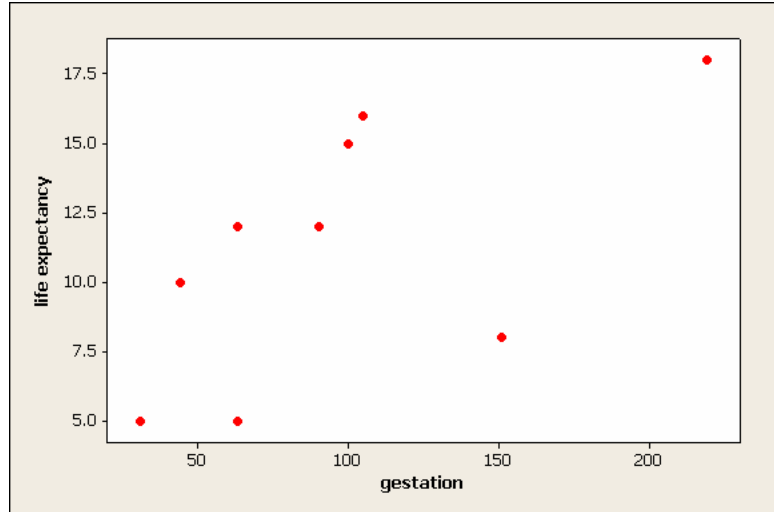


Math 210
 Final Exam A Key
 Fall 2006

1. b
2. d
3. c
4. c
5. .
 - a) 92.9
 - b) 56.16
 - c) .
 - d) $\hat{y} = 6.93 + 0.047x$
 - e) 0.6
 - f) $H_0: \beta = 0; H_a: \beta > 0$
 $t = 2.12; P\text{-value} = 0.03$
 We can conclude there is a positive relationship between gestation period and life expectancy.
 - g) 0.74 to 19.05 years
 - h) 6.77 to 13.01 years
6. .
 - a) 0.0996
 - b) 0.0993
 - c) 0.8011
7. .
 - a) 0.2839
 - b) 97.05°
 - c) 0.0239
8. .
 - a) 325/2201
 - b) 202/325
 - c) 178/2201
 - d) 178/710
9. .
 - a) 0.3164
 - b) 0.9492
10. .
 - a) H_0 : There is no relationship between gender and party affiliation.
 H_a : There is a relationship between gender and party affiliation.
 $\chi^2 = 3.56; P\text{-value} = 0.059$
 We cannot conclude that there is a relationship between gender and party affiliation.



b)

	Democrat	Republican
Male	42	39
Female	42	39

11. $H_0: p = 0.5$; $H_a: p > 0.5$

$z = 2.71$; $P\text{-value} = 0.0034$

We can conclude that a majority of football fans want to see OSU play Florida in the national championship game.

12. 1188.0 to 1288.4

13. 32.498 to 40.802

14. $H_0: \mu_1 = \mu_2 = \mu_3$; H_a : Not all the population means are the same

$F = 41.09$; $P\text{-value} = 0.00000008$

We can conclude that there is a relationship between the color of the board and the mean number of insects trapped.