AP Stats
Chap 6-9
Practice Test
SOLUTIONS

1. D	2. B	3. D	4. B	5. D
6. B	7. D	8. C	9. E	10. B
11. A	12. D	13. D	14. C	15. A
16. D	17. E	18. B	19. C	20. D
21. D	22. E	23. D	24. A	25. A
26. C	27. B	28. A	29. D	

30. weeks worked
31. -0.97
32. no, the residual plot is curved

33. predicted Salary = 8599.28 (GPA) + 22373.09
34. Yes, the scatterplot is straight enough, we are using two quantitative variables, there are no outliers, and the residual plot shows scatter.

35. (predicted) $50751 + (residual) -1880 = $48,871
36. disagree – association does not mean cause and effect

37a. $\log \widehat{CPI} = -36.20 + 0.0192 (\text{year})$

37b. 246.60

37c. I chose to stop on the log rung of the ladder since the scatterplot of the original data was exponential, the R^2 value for the log re-expression was the highest (0.980), the re-expressed scatterplot looks very linear, the re-expressed residual plot is somewhat scattered, and the next rung on the ladder is too far (the scatterplot starts to bend back in the opposite direction).

38a. draw the LSRL
38b. linear, moderately strong, and negative. there is one potential outlier in the y. overall, children seem to crawl earlier when the temperature is higher.

38c. the model suggests that on average, babies crawl .08 weeks earlier for every 1 degree higher the temperature is.

38d. the model predicts that at a temperature of 0 degrees, babies would crawl at an average of 36 weeks old.

38e. 49% of the variability in when the babies first crawled can be explained by the variation in the temperatures.

38f. the babies crawled earlier (at a younger age) then the model predicted back in the opposite direction).