Test 3 SHORT ANSWER QUESTIONS – THE ANSWERS

1. a higher percent take the SAT in Colorado
2. the Southern states would be towards the bottom
3. the Southern states are mixed in well with the other states
4. *r*
5. 
6. sum of the squares of the vertical distances from the points to the line
7. nothing
8. different result
9. nothing
10. *r* uses standardized values
11. 1.43
12. -1 and 1
13. smaller
14. +
15. -
16. -
17. no
18. linear
19. logistic
20. quadratic
21. exponential
22. yes
23. yes
24. *r*
25. % of the difference in *y* explained by the regression line on *x*
26. yes
27. no
28. no
29. no
30. extrapolation
31. B
32. A
33. no
34. ice cream sales & sunburns
35. lurking variable – how much the parents want their kids to succeed
36. BMI between mothers and daughters, genetic and environmental
37. Gun control laws & violent crime levels
38. yes
39. a gene that both made people addicted to nicotine and gave them lung tumors
40. the gene would have appeared coincidentally later in women who started smoking later than men
41. how motivated a person is
42. no
43. yes
44. scatterplot of degree days and gas used to heat a house but half way through the collection of data solar panels were installed and reduced the gas bills
45. A
46. about right
47. less reliable
48. two-way table
49. a relationship that holds in each subcategory but reverses when all the data is combined
50. helicopters vs road for accident victims, helicopters do better in serious and less serious cases, but when combined the road did better
51. differ a lot
52. big
53. Ho is true
54. 10
55. normal populations
56. equal variances
57. independent samples
58. SRSs
59. source
60. luck
61. factor
62. error
63. variance
64. means
65. mean
66. variances
67. data is linear
68. data is normally distributed about the line
69. standard deviation is the same throughout the line
70. independent data