

1. *b*
 2. *b*
 3. *a*
 4. *d*
 5. *b*
 (the values of *p,q, r* are not relevant.
 the statement is a tautology)
 6. *a*; 7. *a*; 8. *d*; 9. *c*; 10. *b*; 11. *b*; 12. *b*
 13. *b*; 14. *a*; 15. *b*; 16. *b*; 17. *c*; 18. *b*;
 19. *b*
 20. *a* $8!$
 21. *d* $npr(10,9)$
 22. *d* $npr(5,3)$
 23. *c* $6!$
 24. *d* $ncr(13,5)$
 25. *c* $ncr(10,6)$
 26. *d* $ncr(26,2)*ncr(26,3)$
 27. *b*
 28. *d*
 29. *a* $ncr(40,5)$
 30. *d* $ncr(13,5)$
 31. *b* 2^4-1
 32. *c* 2^6-1-6
 33. *b* $ncr(52,5)-ncr(26,5)$
 34. *a* $2/12$
 35. *d* $6/8$
 36. *c* $24/82$
 37. *d*
 38. *a* $3:3$
 39. *d*
 40. *c* 0.96 to 0.04
 41. *c* $4/6$
 42. *a* $32/52$
 43. *c* $6/10$
 44. *c* $(13/52)*(13/52)$
 45. *d* $(26/52)*(25/51)$
 46. *a* $(3/8)*(2/7)$ or $ncr(3,2)/ncr(8,2)$
 47. *b* $ncr(4,2)/ncr(52,2)$
 48. *d* $ncr(6,3)/ncr(10,3)$
 49. *a* binomial calculator 0.0197277
 50. *d* 0.0763815
 51. *b* $45/35$
 52. *a* $\$500.00/3000-\1.00
 53. *a* $(1*1400+3*800+9*400)/10000$
 54. *b*
 55. *c*
 56. *d*
 57. *a*
 58. *c*
 59. *d*
 60. *c* Standard Deviation for a sample:
 $\sigma_{n-1} = 1.0937$
 61. *d* Martin: $(41-39)/2.4 = 0.83333333$
 Jeff: $(30-26)/1.9 = 2.10526316$
 62. *d*
 63. *a*
 64. *c*
 65. *b* Quartiles: $Q_0 = 30$, $Q_1 = 54$,
 $Q_2 = 75$, $Q_3 = 89$, $Q_4 = 107$
 66. *b* $z = (x_1 - \mu) / \sigma = -1.3333$
 $P(z < -1.3333) = 0.09121656$
 67. *b* $z = (x_1 - \mu) / \sigma = 0.7778$
 $P(0.7778 < z) = 0.21834359$
 68. *d* $z_1 = (x_1 - \mu) / \sigma = -0.6$
 $z_2 = (x_2 - \mu) / \sigma = 0.4$
 $P(-0.6 < z < 0.4) = 0.38116875$
 69. *a*
 70. *c*