1. 243

5. 125

9. **a)** 1716 **b)** 50,388

11. 9

c) 2,629,575 **d)** 330 **11.** 9 **13.** 4,504,501 **15.** **a)** 10,626
b) 1,365 **c)** 11,649 **d)** 106 **17.** 2,520 **19.** 302,702,400

25. 7,484,400

29. $C(59, 50)$

33. 83,160

35. 63

39. 210

41. 27,720

43. $52!/(7!^5 17!)$

45. Approximately 6.5×10^{32} **47.** **a)** $C(k + n - 1, n)$
b) $(k + n - 1)!/(k - 1)!$ **49.** There are $C(n, n_1)$ ways to

55. 65

59. 3

61. **a)** 150 **b)** 25 **c)** 6 **d)** 2