

5. Independent

6. Dependent

7. Independent

8. dependent

9. False

10. True

11. False

12. False.

13. 12

14. 9

15. 120

16. 60

17. 120

18. 840

19. 399,16,800

20. 60

21. 72

22. 5040

23. 8

24. 48

25. 17,576,000

26. ${}_{12}P_{10} = 239,500,800$
 \uparrow
 chairs pick people

27. $2(2) + 2(2) + 2(3) = 14$

28. Tree Diagram

29. $2(1) + 2(1) = 4$

30. $2(2) + 2(1) + 2(2) = 10$

31. $\underline{1} \underline{4} \underline{3} \underline{2} \underline{1} = 24$

32. $\underline{2} \underline{4} \underline{3} \underline{2} \underline{1} = 48$

33. $\underline{3} \underline{4} \underline{3} \underline{2} \underline{1} = 72$

34. $\underline{4} \underline{3} \underline{1} \underline{2} \underline{1} = 24$

35. $\boxed{6} \underline{5} \underline{4} \quad 6 \cdot 5 \cdot 4 \cdot 4 = 480$
places

36. $\underline{1} \underline{4} \underline{8} \underline{7} \underline{6} = 1,344$

37. $10 \cdot 10 \cdot 10 \cdot 10 \cdot 10 \cdot 24 \cdot 24$

38. $10 \cdot 10 \cdot 10 \cdot 10 \cdot 10 \cdot 26 \cdot 25$

39. $10 \cdot 10 \cdot 10 \cdot 10 \cdot 10 \cdot 25 \cdot 25$

40. $10 \cdot 10 \cdot 10 \cdot 10 \cdot 10 \cdot 26 \cdot 26 = 1 \cdot 1 \cdot 1 \cdot 1 \cdot 26 \cdot 26$

46. ${}_8P_3 = 336$

$8! = 40,320$