

Math 1160 – Section 5.5 Answer Key

2. 5

4. 120

6. 66

8. 20

22. $P(6, 2) = 30$ ways

24. $C(5, 3) = 10$ pizzas

26. $P(6, 6) = 720$ ways

28. $C(10, 4) = 210$ ways

34. $C(8, 5) = 56$ ways

40. $C(20, 4) = 4845$ ways

57. Moe $C(9, 2) = 36$ candy choices Joe $C(7, 3) = 35$ candy choices

Joe is correct. He has fewer candy choices than Moe.

66. $C(20, 3) \times C(14, 2) = 103,740$ ways

You may only choose the 3 singers from the 20 singers available. You may only choose the 2 comedians from the 14 comedians available.

You need 3 singers AND 2 comedians, so multiply the combinations.

79a. $C(45, 5) = 1,221,759$ tickets

79b. $C(100, 4) = 3,921,225$ tickets

79c. First lottery

79d. Second lottery – Compare the number of outcomes of $P(45, 5)$ to $P(100, 4)$