

## 10.2 HW Solutions

1) permutations; 132 ways

2) combinations; 13,836,130,056 ways

3) 120

4) 495

5) 48 hands

6) 2574 hands

7) 2,023,203 hands

8)  $a^3 + 8a^7b^2 + 28a^6b^4 + 56a^5b^6 + 70a^4b^8 + 56a^3b^{10} + 128a^2b^{12} + 8ab^{14} + b^{16}$

9)  $x^6 + 18x^5 + 135x^4 + 540x^3 + 1215x^2 + 1458x + 729$

10)  $x^3 + 6x^2 + 12x + 8$

11) -8064

12) A. 1,2,4,8

B.  $2^n$