

Assignment : Permutation and Combination

Date _____

Find the number of possibilities in each scenario.

- 1) The student body of 215 students wants to elect a president and vice president.
- 2) The batting order for nine players on a 11 person team.
- 3) 5 out of 17 students will ride in a car instead of a van
- 4) The student body of 55 students wants to elect four representatives.

State if each scenario involves a permutation or a combination. Then find the number of possibilities.

- 5) There are 10 people at a meeting. They each shake hands with everyone else. How many handshakes were there?
- 6) A team of 14 basketball players needs to choose a captain and co-captain.
- 7) There are 45 applicants for two Software Tester positions.
- 8) The student body of 35 students wants to elect three representatives.
- 9) Cody has homework assignments in seven subjects. He only has time to do four of them.
- 10) There are 210 people at a meeting. They each give a Valentine's Day card to everyone else. How many cards were given?

Answers to Assignment : Permutation and Combination (ID: 1)

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|--------------------|-------------------------|---------------------|-----------------------|
| 1) 46,010 | 2) 19,958,400 | 3) 6,188 | 4) 341,055 |
| 5) Combination; 45 | 6) Permutation; 182 | 7) Combination; 990 | 8) Combination; 6,545 |
| 9) Combination; 35 | 10) Permutation; 43,890 | | |

