

# Practice 12-7

## Combinations

**Find the number of combinations.**

1. Choose 3 people from 4.

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2. Choose 4 people from 6.

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**Use the numbers 3, 5, 8, 10, 12, 15, 20. Make a list of all the combinations.**

3. 2 even numbers

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4. 3 odd numbers

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5. 1 even, 1 odd

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6. any 2 numbers

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7. You just bought five new books to read. You want to take two of them with you on vacation. In how many ways can you choose two books to take?

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**Charmayne is organizing a track meet. There are 4 runners in her class. Each runner must compete one-on-one against each of the other runners in her class.**

8. How many races must Charmayne schedule? \_\_\_\_\_

9. Must Charmayne schedule permutations or combinations? \_\_\_\_\_

**A committee for the end-of-year party is composed of four eighth graders and three seventh graders. A three-member subcommittee is formed.**

10. How many different combinations of eighth graders could there be if there are three eighth graders on the subcommittee?

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11. How many different combinations of seventh graders could there be if the subcommittee consists of three seventh graders?

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12. Find the probability that all 3 members on the subcommittee are eighth graders.

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13. Find the probability that all 3 members on the subcommittee are seventh graders.

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