



### 4.3 Combinations Solutions

In this worksheet, we will explore ways of combining items. When working are working with combinations, the number of ways of combining objects is important, but the order of If you would like further explanation before attempting these problems, links to video descriptions can be found at the end of this worksheet. Starred problems have video solutions.

- 1 Tina goes to the flower shop to buy flowers. Flowers come in bunches of 6, and they can be red, yellow, pink or white. If Tina wants to buy 12 flowers, how many different bouquets can Adam make?

Solution: 28 bouquets.

- 2 \* Maya is going out to dinner with her family. She wants to order three different appetizers. If the restaurant offers five appetizers, how many different sets of appetizers can Maya buy?

Solution: 10 different sets.

- 3 \* The restaurant offers 5 different kinds of drinks, 4 entrees and 3 desserts. How many different combinations of drink, entree and dessert can Maya get if she orders one of each?

Solution: 60 combinations.

- 4 Jason goes to the grocery store to buy soup. There is a sale on soup if you buy three cans. The store has tomato soup, chicken soup, and clam chowder. How many possible combinations of soup can Jason buy?

- (a) 18
- (b) 10
- (c) 30
- (d) 24

Solution: B



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5 Andy needs some new clothing. He buys three different shirts, four pairs of pants and two jackets. How many different outfits can Andy make with his new haul?

- (a) 12
- (b) 15
- (c) 30
- (d) 24

Solution: D

Additional Resources:

- Here you'll find info about combinations: [https://www.khanacademy.org/math/precalculus/prob\\_comb/combinatorics\\_precalc/v/combinations](https://www.khanacademy.org/math/precalculus/prob_comb/combinatorics_precalc/v/combinations)