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Course: MAT1301-14A-1A16-S2
Book: Pirnot: Mathematics All Around, 5e

Assignment: Unit V Homework

25. You are taking a multiple-choice test that has 7 questions. Each of the questions has 4 answer choices, with one correct answer per question. If you select one of these choices for each question and leave nothing blank, in how many ways can you answer the questions?

You can answer the questions in ways.

26. A college debate team is participating in a tournament in state A. They will fly from state B to state C, then to state D, and finally to state A. If there are 2 possible flights to state C, 4 from state C to state D, and finally 6 from state D to state A, in how many ways can they schedule the trip?

How many ways can they schedule the trip?

27. Radio stations have call letters consisting of a T or Y followed by four letters (T or Y can be used again). How many different call letters of this type are possible?

There are different combinations that can be formed.
(Simplify your answer.)

28. A group of 11 musical notes is made into a 11-tone musical phrase, consisting of 11 different notes. How many different phrases are possible to construct?

There are different phrases possible to construct.

29. A pin tumbler lock has a series of pins, each of which must be positioned at the proper height to allow the lock to open. The security of the lock is determined by the number of pins in the lock, as well as the number of different possible lengths for the pins. Inserting the proper key in the lock aligns the pins properly and allows the interior of the lock to be turned. If a pin tumbler lock has five pins, each of five different lengths, how many different keys should be tried in order to guarantee that the lock could open?

To guarantee that the lock could open, keys should be tried.