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He is plantin placed a white rose bush, a yellow rose bush, a pink planter. In how many different orders can he place all Bless has 5 pieces of his birthday cake left. In how make? In preparation for their school debate, Thomas is in cake? In he intends to seat 8 people in 8 seats in each row, the seats? The head coach of a basketball team needs to introd the beginning of the next season's game. In how many 4-course meal on each person's plate? In a soccer team, there are 11 palyers. How many difference of the seats of the seat	Richard owns a garden in his back yard. He is planting for placed a white rose bush, a yellow rose bush, a pink rose planter. In how many different orders can he place all the Bless has 5 pieces of his birthday cake left. In how many cake? In preparation for their school debate, Thomas is in chalf he intends to seat 8 people in 8 seats in each row, how the seats? The head coach of a basketball team needs to introduce the beginning of the next season's game. 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How many different ways can the coach as a soccer team, there are 11 palyers. How many different ways can the coach as a soccer team, there are 11 palyers.	Richard owns a garden in his back yard. He is planting four different colors of rose placed a white rose bush, a yellow rose bush, a pink rose bush and a red rose bush planter. In how many different orders can he place all the roses in a planter? Bless has 5 pieces of his birthday cake left. In how many different orders can he ea cake? In preparation for their school debate, Thomas is in charge of arranging seats for the intends to seat 8 people in 8 seats in each row, how many different orders can the seats? The head coach of a basketball team needs to introduce the 5 starting players of the beginning of the next season's game. In how many different orders can he do to the seats? There is a 4-course meal at the gala party. How many ways can the caterer arrange 4-course meal on each person's plate? 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He is planting four different colors of rose flowers. In placed a white rose bush, a yellow rose bush, a pink rose bush and a red rose bush in a row in planter. In how many different orders can he place all the roses in a planter? Bless has 5 pieces of his birthday cake left. In how many different orders can he eat the remacake? In preparation for their school debate, Thomas is in charge of arranging seats for the audient of the intends to seat 8 people in 8 seats in each row, how many different orders can he arrange the beginning of the next season's game. In how many different orders can he do this? The head coach of a basketball team needs to introduce the 5 starting players of the team at the beginning of the next season's game. In how many different orders can he do this? There is a 4-course meal at the gala party. How many ways can the caterer arrange a full 4-course meal on each person's plate? In a soccer team, there are 11 palyers . How many different ways can the coach arrange the



Class:



Name:

	Permutations	
1.	John's father wants to set a combination on a three-digit lock. He wants to use the n 1, 2, 3 but doesn't care what order they are in. In how many different orders can he so combinations?	
	Use factorials to solve this problem. John's father can set the lock's combination in 3! different orders Evaluate 3! by multiplying all the whole numbers between 1 and the given number. 3! = 3 x 2 x 1 = 6 So, John's father can set the lock's combination in 6 different orders.	
2.	So, Richard can place the roses in 24 different orders in a planter.	
3.	So, Bless can eat the cake in 120 different orders.	
4.	So, he can arrange the seats in 40,320 different orders.	
5.	So, he can do this in 120 different orders.	
6.	So, there are 24 ways.	
7.	So, the coach can arrange the lineup in 39,916,800 different ways.	