Bellwork Alg 2 Thursday, May 23, 2019 4th & 6th hrs

1. A new recreational basketball league was formed in which each team plays one game against each other team. There are seven teams: The Anacondas, the Bears, the Cubs, the Dogs, the Eagles, the Ferrets, and the Gators. Create a systematic list to find the total number of games that will be played.

2. Amani, Bart, Chuck, and Dalia all called in to a radio show to get free tickets to a concert. Create a systematic list to find the number of all possible different orders in which their calls could have been received.

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TEAMS: A, B, C, D, E, F, G

AB	BC	CD	DE	EF	FG
AC	BD	CE	DF	EG	
AD	BE	CF	DG		
AE	BF	CG			
AF	BG				
AG					

6 games + 5 games + 4 games + 3 games + 2 games + 1 game = **21 games**

2. Amani, Bart, Chuck, and Dalia all called in to a radio show to get free tickets to a concert. Create a systematic list to find the number of all possible different orders in which their calls could have been received.

Callers: A, B, C, D

A is first	B is first	C is first	D is first
ABCD	BACD	CABD	DABC
ABDC	BADC	CADB	DACB
ACBD	BCAD	CBAD	DBAC
ACDB	BCDA	CBDA	DBCA
ADBC	BDAC	CDAB	DCAB
ADCB	BDCA	CDBA	DCBA
6 calls	6 calls	6 calls	6 calls

6 calls + 6 calls + 6 calls + 6 calls

= **24 calls**