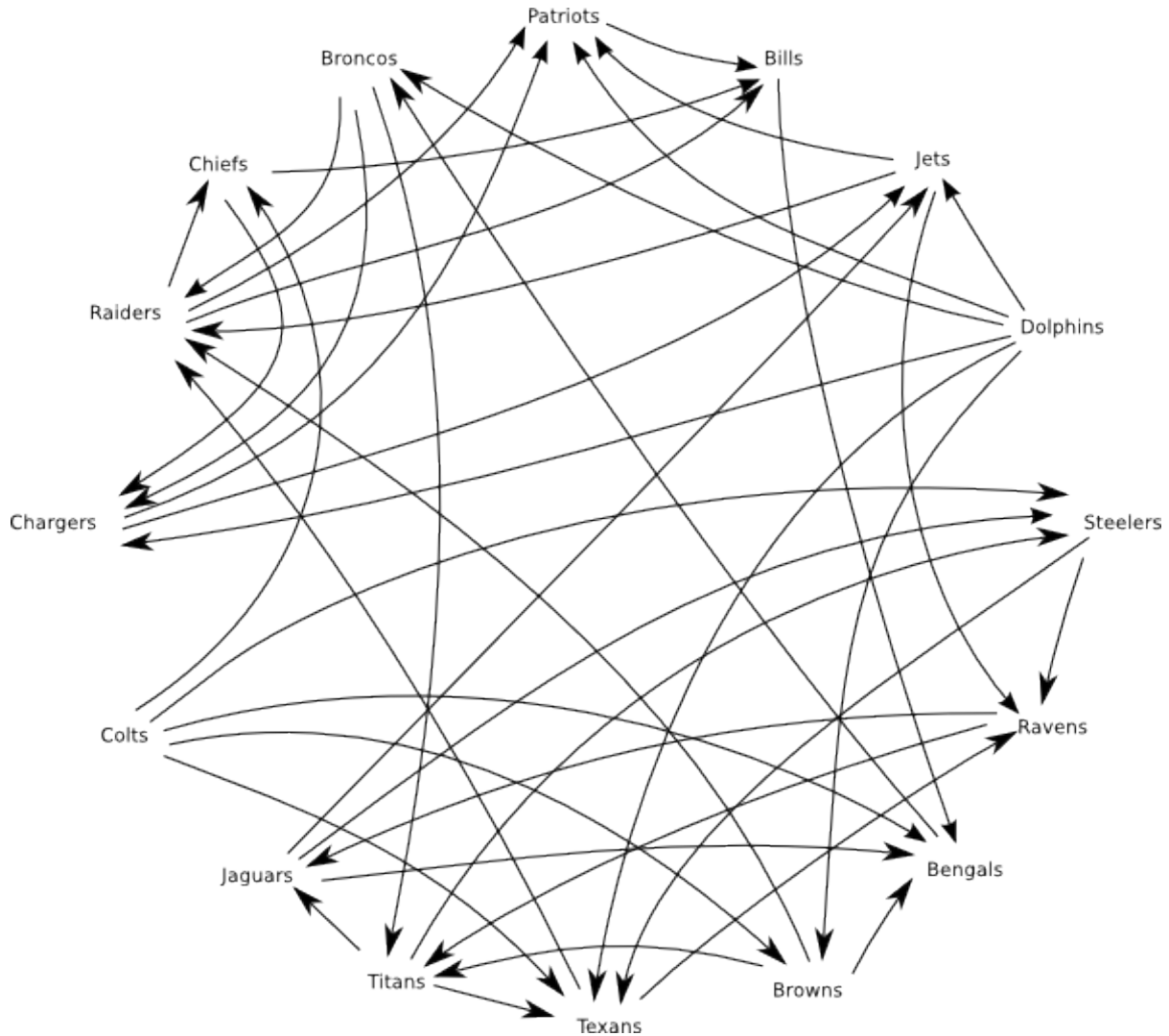


The Win/Loss Record in a Directed Graph

Directed graphs are ways to represent relationships between many different objects. They can be used to show the outcomes of competitive games between two teams. We will look at the outcomes of the first six weeks of the American Football Conference represented as a directed graph. Each arrow



represents a game played in the first six weeks. The tail of the arrow is at the loser of the game. The head of the arrow is at the winner of the game.

- 1) What teams have the Texans played?
- 2) Who have the Browns lost games to?
- 3) What is the record of each team?
- 4) A cycle is a sequence of arrows that start and end in the same place. Are there any cycles in the above graph? What are they?

Use the following data for NFC games to make a directed graph for the teams
: Dallas Cowboys, NY Giants, Philadelphia Eagles, Washington Redskins,
Chicago Bears, Detroit Lions, Green Bay Packers, and MIN Vikings

Week 1				Week 2				Week 3				Week 4			
NYG	14	WAS	28	DAL	27	SFO	24	DAL	18	WAS	16	DAL	30	DET	34
PHI	31	STL	13	NYG	28	STL	16	NYG	29	PHI	16	NYG	31	ARI	27
CHI	30	ATL	12	PHI	31	ATL	35	CHI	17	GBP	27	PHI	23	SFO	24
DET	27	TBB	20	WAS	22	ARI	21	DET	26	MIN	23	WAS	17	STL	10
GB	42	NOS	34	CHI	12	NOS	30					CHI	34	CAR	29
MIN	17	SDC	24	DET	48	KCC	3					GB	49	DEN	23
				GB	30	CAR	23					MIN	17	KCC	22
				MIN	20	TBB	24								
Week 5				Week 6				Week 7							
NYG	25	SEA	36	DAL	16	NEW	20	DAL	34	STL	7				
PHI	24	BUF	31	NYG	27	BUF	24	WAS	20	CAR	33				
CHI	13	DET	24	PHI	20	WAS	13	CHI	24	TBB	18				
GBP	25	ATL	14	CHI	39	MIN	10	DET	16	ATL	23				
MIN	34	ARI	10	DET	19	SFO	25	GBP	33	MIN	27				
				GBP	24	STL	3								