GAME THEORY

The class will form into four teams of two, with two superobservers. The game will consist of alternating periods of discussion, voting, and resolution.

During discussion, teams can decide on a voting strategy among themselves, and they can negotiate with other teams for coordinated voting. The only constraints on negotiation is that resource exchanges must be recorded with a superobserver.

During voting, each team will cast one of their three possible voting options.

During resolution, the four votes will be combined to determine a ***group outcome*** from the outcome table.

The superobservers will collect information on the processes and strategies of each team and keep records.

Each team is different. The initial assets (expressed in units), and the voting choices of each team are below.

Teams	**A**	**B**	**C**	**D**
Initial assets:	2	5	10	20
Voting options:	{V, 0, 1}	{V, 0, 2}	{0, 1, 2}	{0, 2, S}

V	can be interpreted as Veto
{0, 1, 2}	can be interpreted as a strength of monetary support
S	can be interpreted as Strong monetary support

Under these interpretations,

Team A	poor
Team B	workers
Team C	professionals
Team D	wealthy

The game is to increase the wealth of each team.

The outcome is each game round is expressed by a decision table:

TEAM	A	B	C	D
OUTCOMES				
VVS	x2	x1.5	x.7	x.2
VV	x1	x1	x.6	x.5
VS	if V then	x2 else x1	x.9	x.7
V0123	if V then	-5 else +5	+ 5	0
V456	if V then	+10 else +2	- 5	+ 5
012	0	+ 1	+ 5	+10
34	+4	+ 6	+10	+ 8
567	+6	+10	+12	+10
S012	+5	+ 6	+ 7	+ 5
S345	x2	x3	x4	x5

Some outcomes are triggered by several different voting results. For example, a vote sum of 4, 5, or 6 all trigger the **V456** outcome row, even if one team voted V.

"+" means add the specified amount to the team assets

"-" means subtract the specified amount to the team assets

"x" means multiply the current assets of the team by the specified factor.
note that multiplication by less than 1 is a loss of assets.

The *expected gain* for each team for each round is 5.