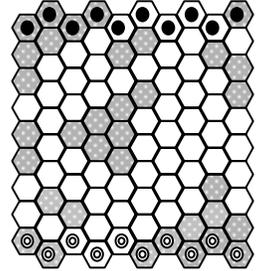


George Gamow's Tank Game

During his work at the Operations Research Office, the physicist George Gamow invented a simple war game to be played by analysts. The rules are given by Page:

[The] game is played with three identical boards, one for each of the players and one for a referee.

The board ... represents a tank battlefield by a lattice of hexagons, ... some of which are hatched to represent wooded areas of low visibility. The white hexagons represent open fields, and the size of a hexagon represents the "radius of action" of a tank in battle.

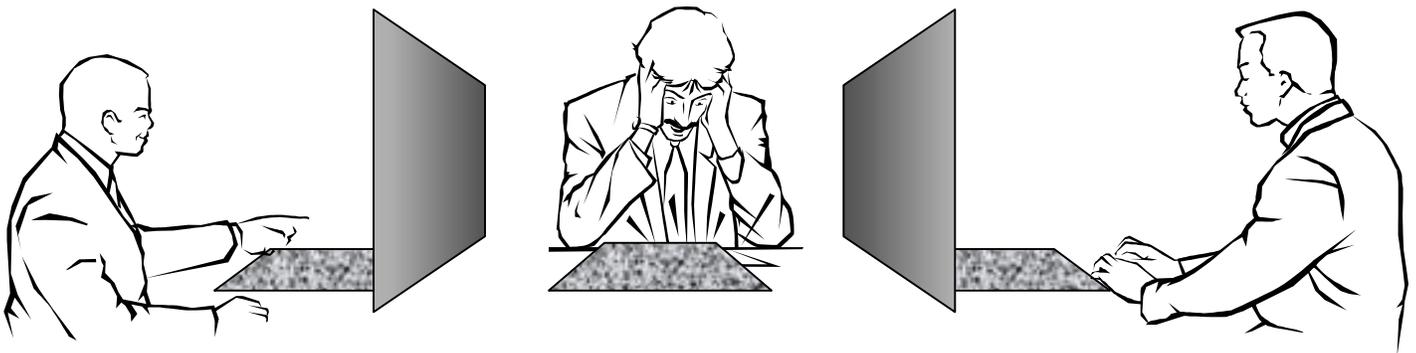
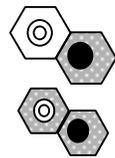


Each player starts with ten markers representing tanks at his back line, and "a move" consists in displacing any number of tanks into any of the adjacent hexagons. Each player sees his board only and must infer from the play where his opponent's tanks are located.

If two opposing tanks arrive on adjoining white hexagons, "a battle" is announced by the referee, who spins a coin to decide which tank is eliminated. When a moving tank comes into contact with two enemy tanks simultaneously, it must "shoot it out" first with one of them, and then, if victorious, with the other.



A tank in the woods obtains a clear kill on any tank which moves into an adjacent white hexagon; a coin is flipped to determine the survivor if another tank moves into the same hexagon in the woods. The objective of the game is to kill off all the opposing tanks, retaining the maximum of one's own tanks.*



* Page, Thornton. "A Tank Battle Game." Journal of the Operations Research Society of America volume 1, (1952) pages 85-86.

