

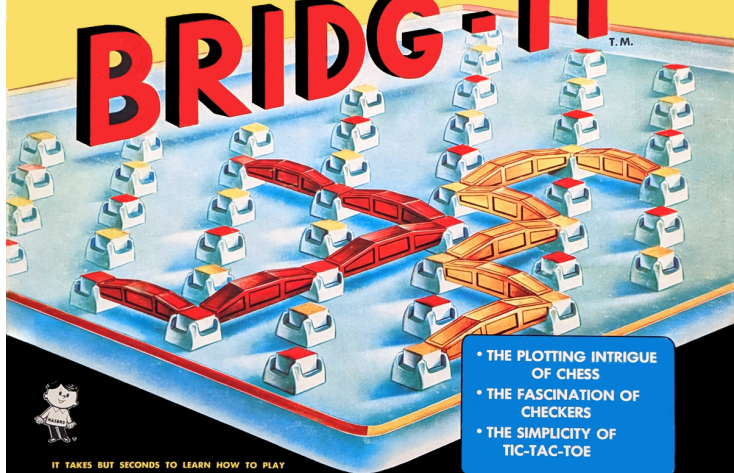
Teoretyczne i praktyczne aspekty gry "Bridg-it"

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Uniwersytet Wrocławski

The **NEW** Unpredictable Game

BRIDG-ITTM



- THE PLOTTING INTRIGUE OF CHESS
- THE FASCINATION OF CHECKERS
- THE SIMPLICITY OF TIC-TAC-TOE



IT TAKES BUT SECONDS TO LEARN HOW TO PLAY

PAT. PENDING

Never a Tie — Always a Winner

HASSENFELD BROS., INC., CENTRAL FALLS, R. I. U.S.A. 2600



BRIDG-IT

COPY 1940 BY HASENFELD BROS., INC.

2600

INSTRUCTIONS

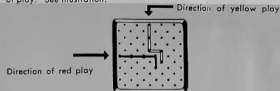
Bridg-It is a game for two players.

Object of the Game

To complete a continuous connected path of bridges from one colored end of the board to the opposite end of the same color.

Playing the Game

1. Players select the color bridges they will use, either red or yellow.
2. Place playing board at right angles to each other. Beginners may find it easier to remember this if they sit facing the direction of play. See illustration.



3. Game starts by either player placing one of his bridges between any two towers (of the same color as his bridge) anywhere on the playing board.

4. Remember that the bridges do not have to be placed so that they connect with each other in order.

5. The game proceeds as each player takes turns placing a bridge between the same color towers. At the same time, each player tries to block his opponent's attempt to complete a path.

Important

Bridges may only be placed on towers of the same color.

First player to complete an unbroken path of bridges from his near side to his opposite side is the winner.

Rarely will you require more bridges than are supplied. Should this occur, you can use bridges already on the playing board which are of no advantage.

Advanced Bridg-It

When you gain skill playing Bridg-It, you will want to try several interesting variations of the game.

Each player takes only 12 bridges. If the game isn't won when the 12 bridges are used up, players must take bridges that are already on the board to make moves.

Naturally, wasted bridges should be used first. Players should calculate their moves so that they won't remove a bridge from an advantageous position.

The game is continued in this manner until there is a winner.

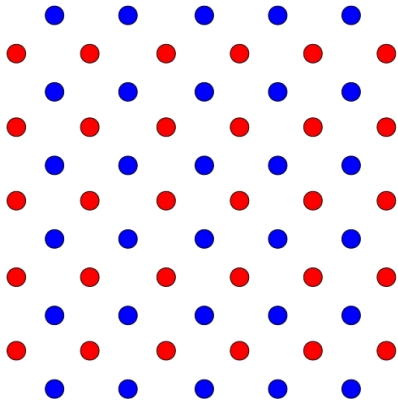
After becoming expert with 12 bridges, a real challenge would be to try Bridg-It with 10 or 8 bridges for each player.

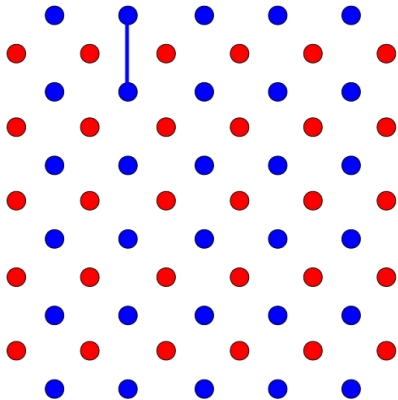
SKILL OF PLAY

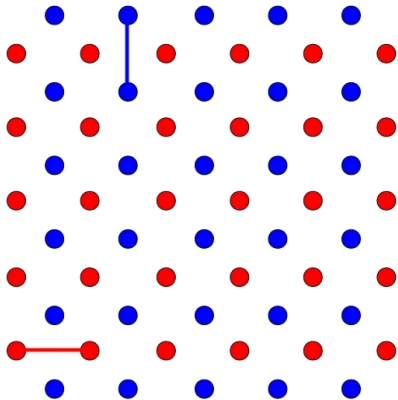
12 Bridges each — "Student"
10 Bridges each — "Brain"
8 Bridges each — "Genius"

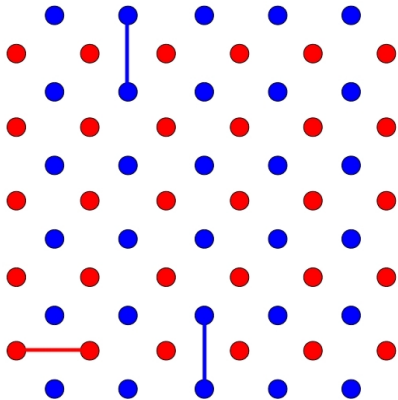
This is another Hasbro product made by the makers of toys and games with maximum play value.

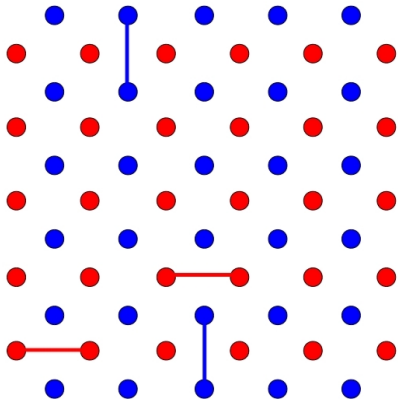
HASENFELD BROS., INC. Central Falls, R. I., U. S. A.

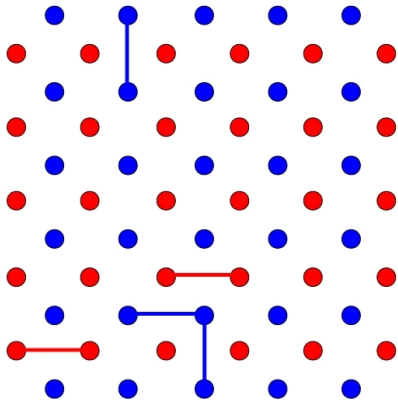


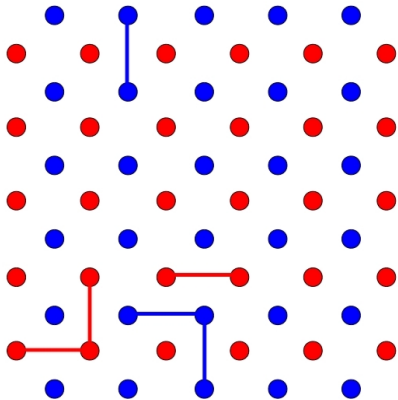


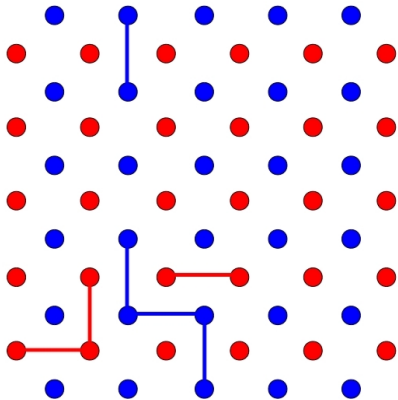


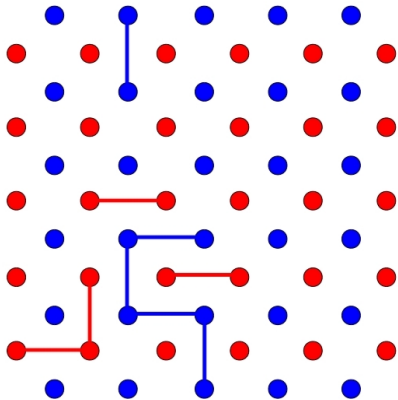


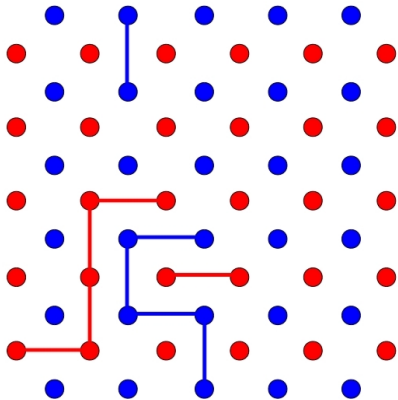


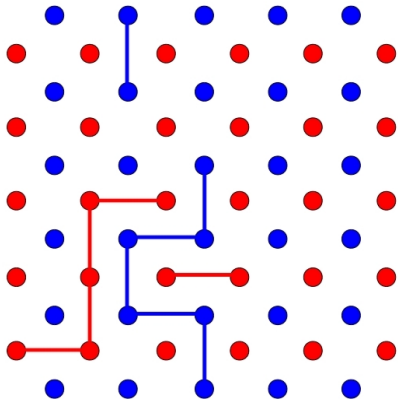


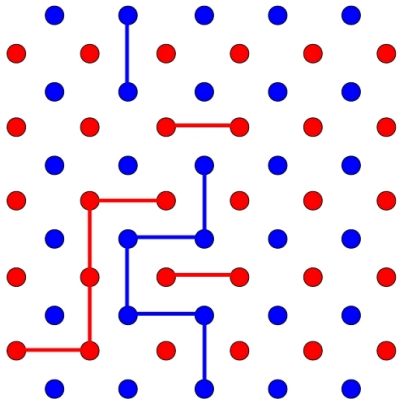


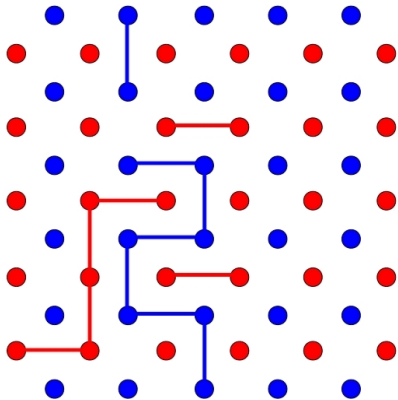


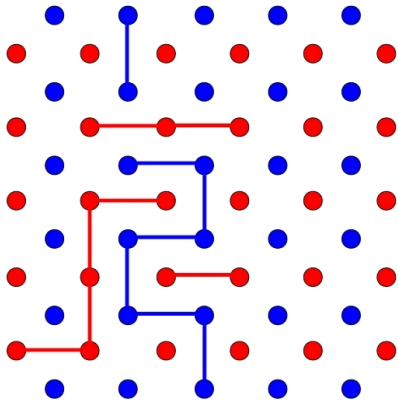


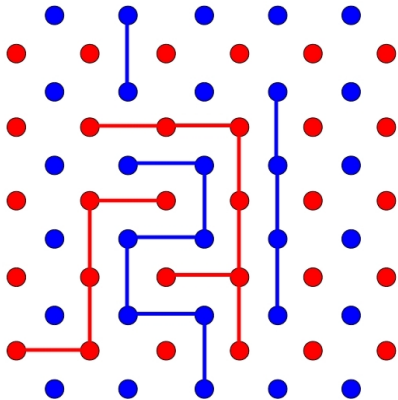


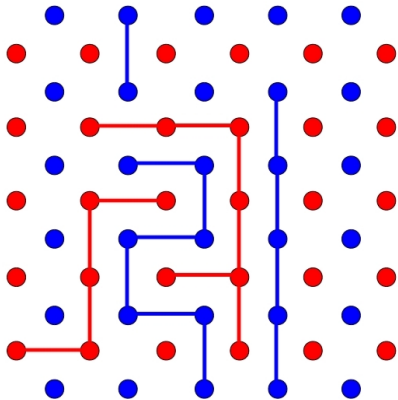


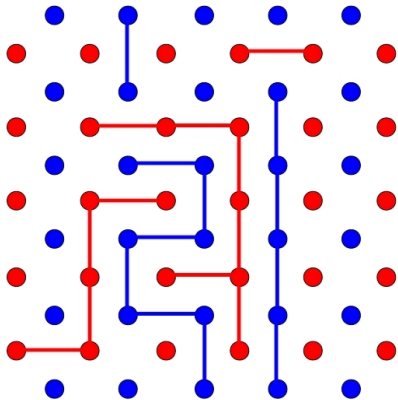


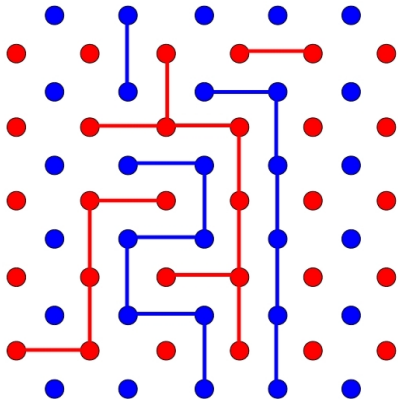


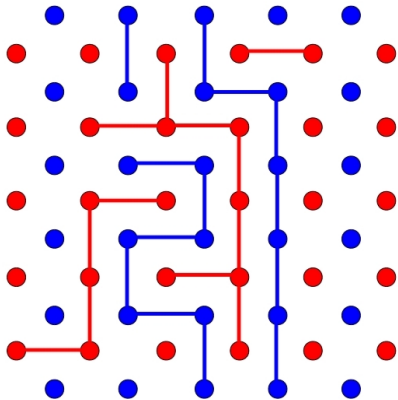


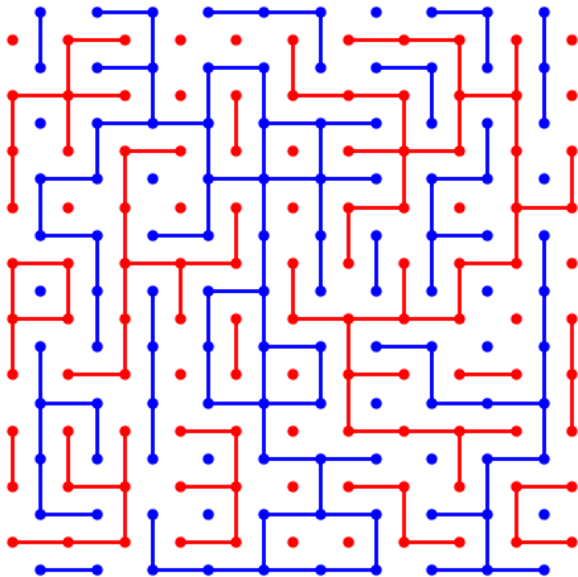


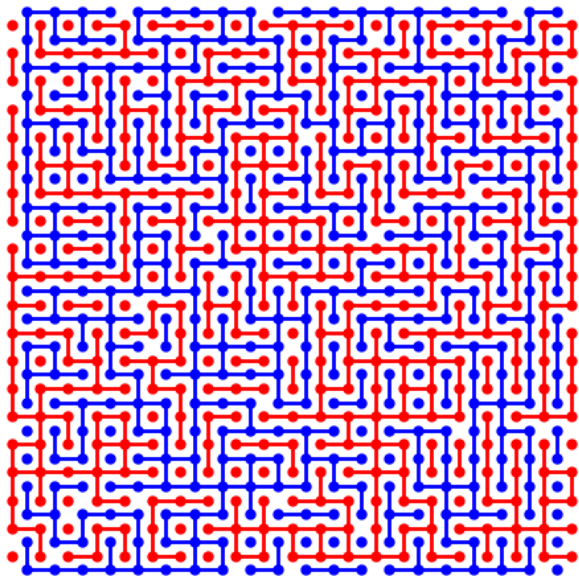


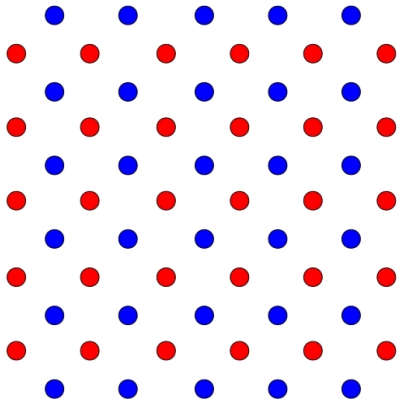


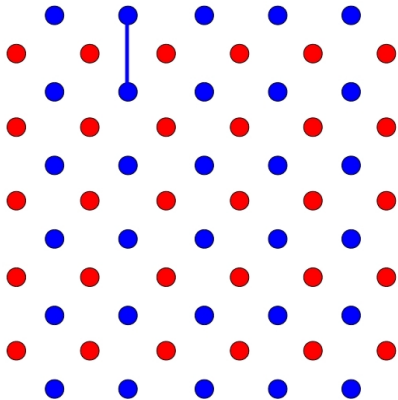


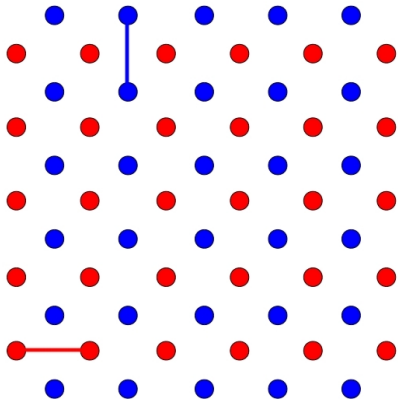


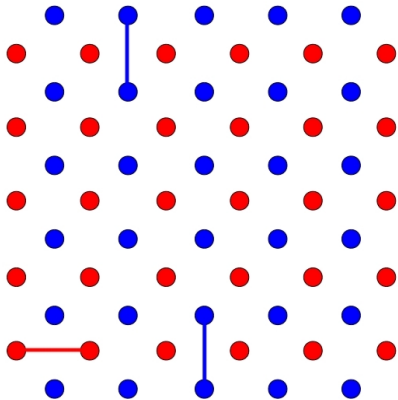


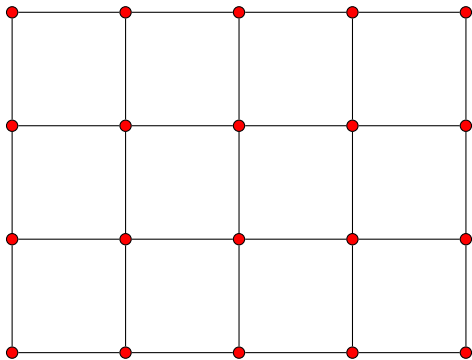


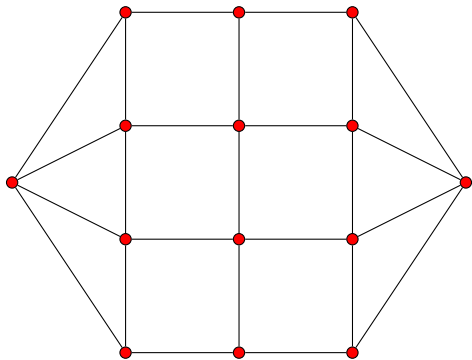


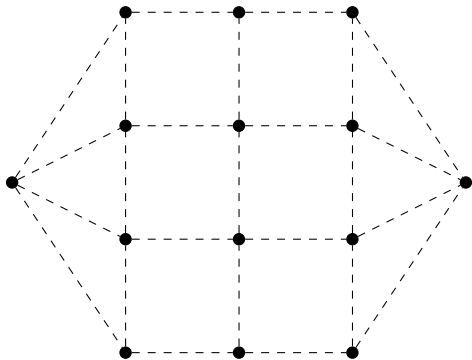


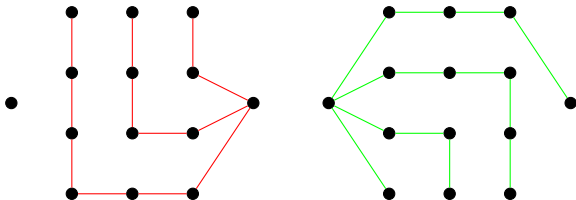
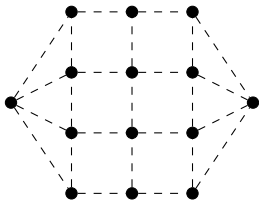


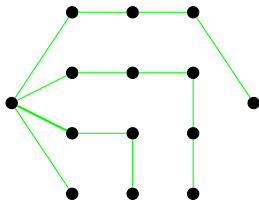
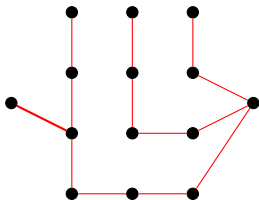
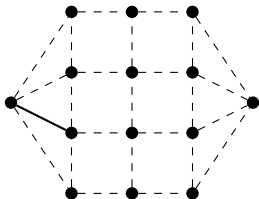


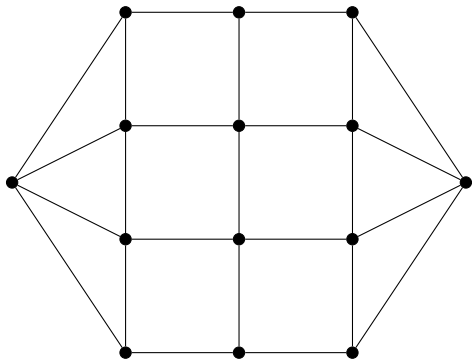


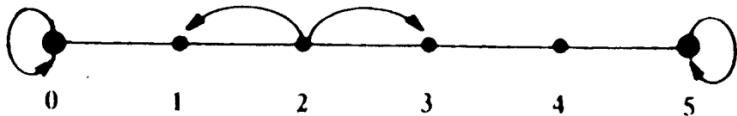












$p(k)$ = prawdopodobieństwo wyratowania przy starcie z punktu k

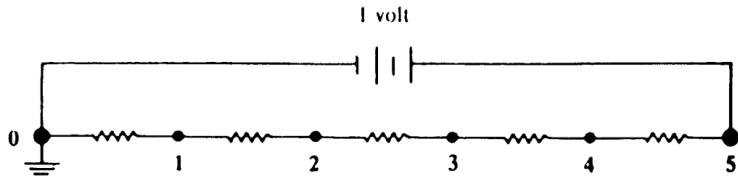
$$p(0) = 0$$

$$p(5) = 1$$

$$p(1) = \frac{1}{2}p(0) + \frac{1}{2}p(2)$$

...

$$p(k) = \frac{1}{2}p(k-1) + \frac{1}{2}p(k+1) \quad 1 \leq k \leq 4$$



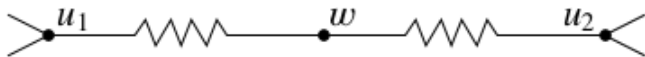
$$v(0) = 0 \quad v(5) = 1$$

$$i_{xy} = \frac{v(x) - v(y)}{R}$$

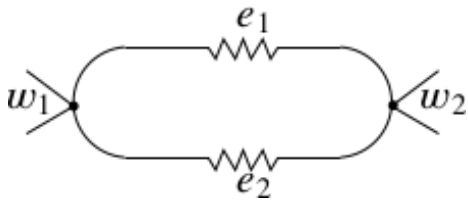
$$i_{k-1,k} = i_{k,k+1}$$

$$v(k) - v(k-1) = v(k+1) - v(k)$$

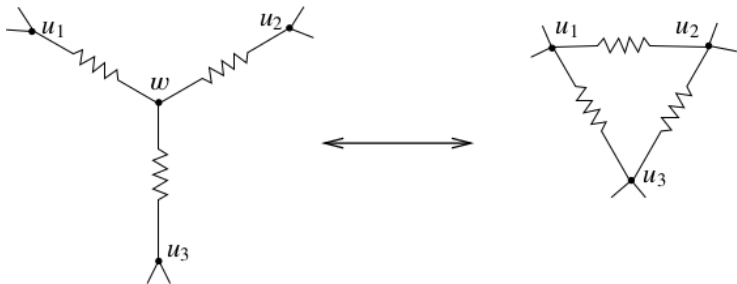
$$v(x) = \frac{1}{2}v(x-1) + \frac{1}{2}v(x+1)$$



$$R = R_1 + R_2$$

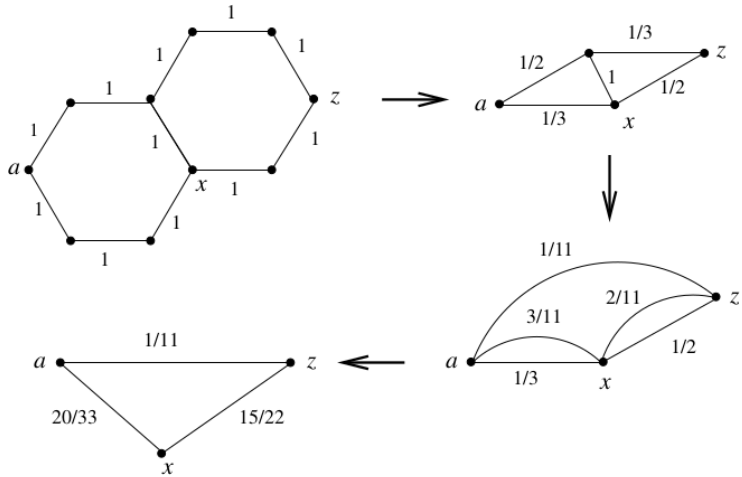


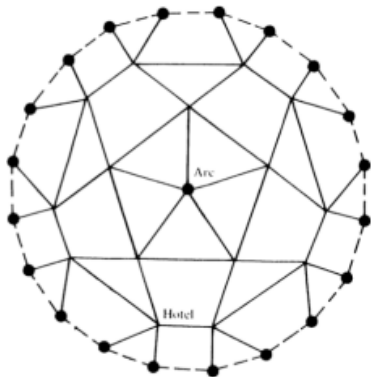
$$\frac{1}{R} = \frac{1}{R_1} + \frac{1}{R_2}$$



$$\gamma = \frac{R(u_1, u_2)R(u_2, u_3)R(u_3, u_1)}{R(u_1, u_2) + R(u_2, u_3) + R(u_3, u_1)}$$

$$R(w, u_1)R(u_2, u_3) = \gamma$$





$$i_{xy} = \frac{v(x) - v(y)}{R}$$

$v(x)$ = prawdopodobieństwo ucieczki z x

$$i_{xy} = \frac{v(x) - v(y)}{R}$$

$v(x)$ = prawdopodobieństwo ucieczki z x

$$v(x) = \frac{\text{liczba ścieżek z } x \text{ kończących się ucieczką}}{\text{liczba wszystkich ścieżek z } x}$$

$$i_{xy} = \frac{v(x) - v(y)}{R}$$

$v(x)$ = prawdopodobieństwo ucieczki z x

$$v(x) \approx \frac{\text{liczba ścieżek z } x \text{ kończących się ucieczką długości } \leq n}{\text{liczba wszystkich ścieżek z } x \text{ długości } \leq n}$$