

## RIDDLES ABOUT GAMES!

- (1) Two players take turns putting pennies on a round table (of any size!), without piling one penny on top of another. The player who cannot place a penny loses. **Who wins and how?**
- (2) Two players take turns placing bishops on the squares of a chessboard (of size  $8 \times 8$ ), so that they cannot capture each other (the bishops may be placed on squares of any color). The player who cannot move loses. Bishops are the pieces that look like this: ♖, and move diagonally. **Who wins and how?**
- (3) Two players take turns placing knights on the squares of a chessboard (of size  $8 \times 8$ ), so that no knight can take another. The player who is unable to do this loses. Knights are the pieces that look like this: ♞, and move in an “L” shape. **Who wins and how?**
- (4) Two players take turns placing kings on the squares of a  $9 \times 9$  chessboard, so that no king can capture another. The player who is unable to do this loses. Kings are the pieces that look like this: ♔, and moves one square in any direction. **Who wins and how?**
- (5) Twenty points are placed around a circle. Players take turns joining two of the points with a line segment which does not cross a segment already drawn in. The player who cannot do so loses. **Who wins and how?**

These are taken from *Math Circles*, by Fomin, Genkin, and Itenberg.