

Pay to Play

You are running a casino with the following games. What is the least amount of money you need to charge your guests per play so that you will at least break even in the long run?

1. Lucky Six: This game is played by rolling two fair six sided dice repeatedly, until at least one of them is a six. If the other die is a six then you win \$36; otherwise, you win the amount shown on the other die.
2. Cherry Slots: A slot machine has two drums, each of which is divided into three sections. On two of the three sections is a cherry, the third section shows a lemon. If you pull and get all cherries, you win \$2. If you pull and get all lemons, you win \$1.
3. Super Cherry Slots: Same slot machine as above, this time with three drums. Again, if you pull and get all cherries, you win \$2. If you pull and get all lemons, you win \$1.
4. Pyramid Products: In this game you roll two fair four sided dice. You win a number of dollars equal to the product of the resulting numbers.
5. Cube Products: Same dice game as above, except you roll two fair six sided dice.