



WORKSHEET

Dice games by Mozart

Time:

1 day (50min)

Needed material:

-Computer and projector (you need a computer with a program that opens files .mus exemple SmartMusic)

Explanation: Musical dice game was a system for using dice to randomly 'generate' music from precomposed options. These 'games' were quite popular throughout Western Europe in the 18th century. Several different games were devised, some that did not require dice, but merely 'choosing a random number.'

W. A. MOZART (1756-1791) was not only a great composer who produced a huge variety of musical pieces, but he liked fun and jokes too. In his "Musikalisches Würfelspiel" (Musical Dice Game) for each of the 16 bars of a Wiener minuet, Mozart offered 2 choices for the 8th and the 16th bars, and 11 choices for each of the other bars. Mozart's idea was that from the stock of bars the player will be able to "generate" a huge variety of melodies himself, by selecting randomly from the offered choices per bar. Besides the musical experience, the piece provides challenges in probability theory, ranging from practical routine computations to fundamental and philosophical ones. Both the musical and mathematical aspects can be used well for educational purposes.

Instructions for students:

You are going to generate randomly a minuet or a trio. You can play your own measures by clicking on the unselected ones, so you could have your roll dice and create your own minuet, but you'd have to click your way across the chart.

Click on the link below:

<https://www.mozart-game.cz>



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1. Read the explanation.
 2. Create two minuets and two trios and choose the ones you like.
 3. Try to guess the instruments.
 4. Show your melody to the class.
 5. How many possibilities of minuets are? and of trios?
 6. What is the probability that has left your melody?
 7. What is the probability of creating a melody only with two-digit numbers?



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