

EMPTY THE CHEST



V3

Age Range: 6th Grade +

Number of players: 2 or more

Learning: logical reasoning, probability, properties of numbers

You will need:

- 2 Dice
- 12 coins or counters (6 per player)

Instructions:

- Each player places their 6 counters into their 3 chests – you can leave chests empty, but each chest can only have a **maximum of 3** counters in.
- Take turns to throw the two dice and add up the totals.
 - o If the total is a multiple of 3: take a coin out of Chest 1.
 - o If the total is a prime number: take a coin out of Chest 2.
 - o If the total is an even number: take a coin out of Chest 3.
- If your number falls into two categories, then you can take a coin out of either chest (you cannot take a coin out of both) and add it to your pile.
- The game finished when one player empties all their chests of coins.
- Note – the totals have been chosen so that the probabilities are not equal – there is a greater chance of getting some totals than others.

Variations:

- If you roll a double, you can choose to place one of the coins in your pile into one of your opponent's chests (you cannot take any coins out of your own chests if you do this).
- You can put as many coins in each chest as you wish.
- Play the game with more/fewer coins.

Note:

For older children, once they have played the game a few times, they could work out the probabilities of getting each of the chest totals to see which is most likely and least likely to be chosen.



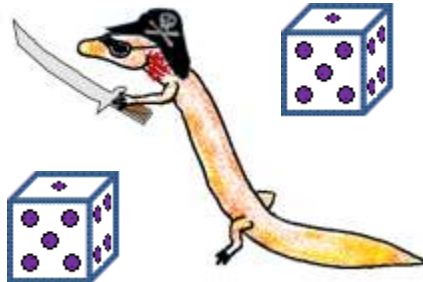
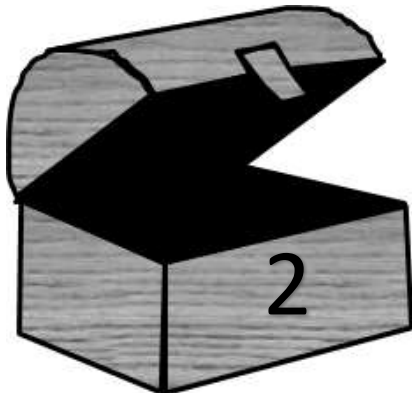
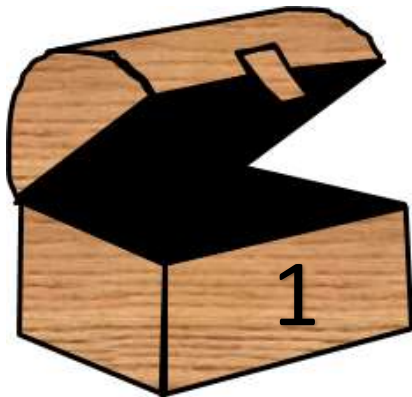
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Place the 6 coins into any of your chests.

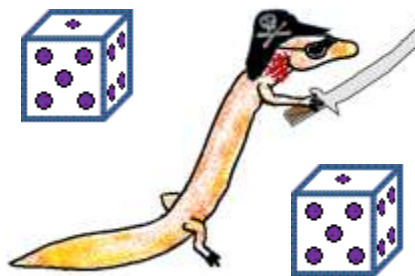
You are only allowed to put a maximum of 3 coins in any chest.

PLAYER 1

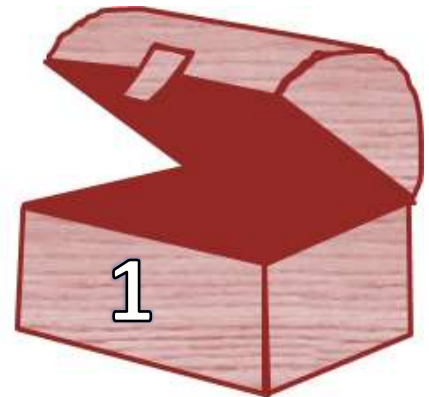


TOTAL ROLL

MULTIPLE OF 3	CHEST 1
PRIME NUMBER	CHEST 2
EVEN NUMBER	CHEST 3



PLAYER 2



The first player to empty all their chests is the winner.