

PENNIUM-123

The participants will simulate radioactive decay and plot the decay of an isotope of the imaginary element pennium.

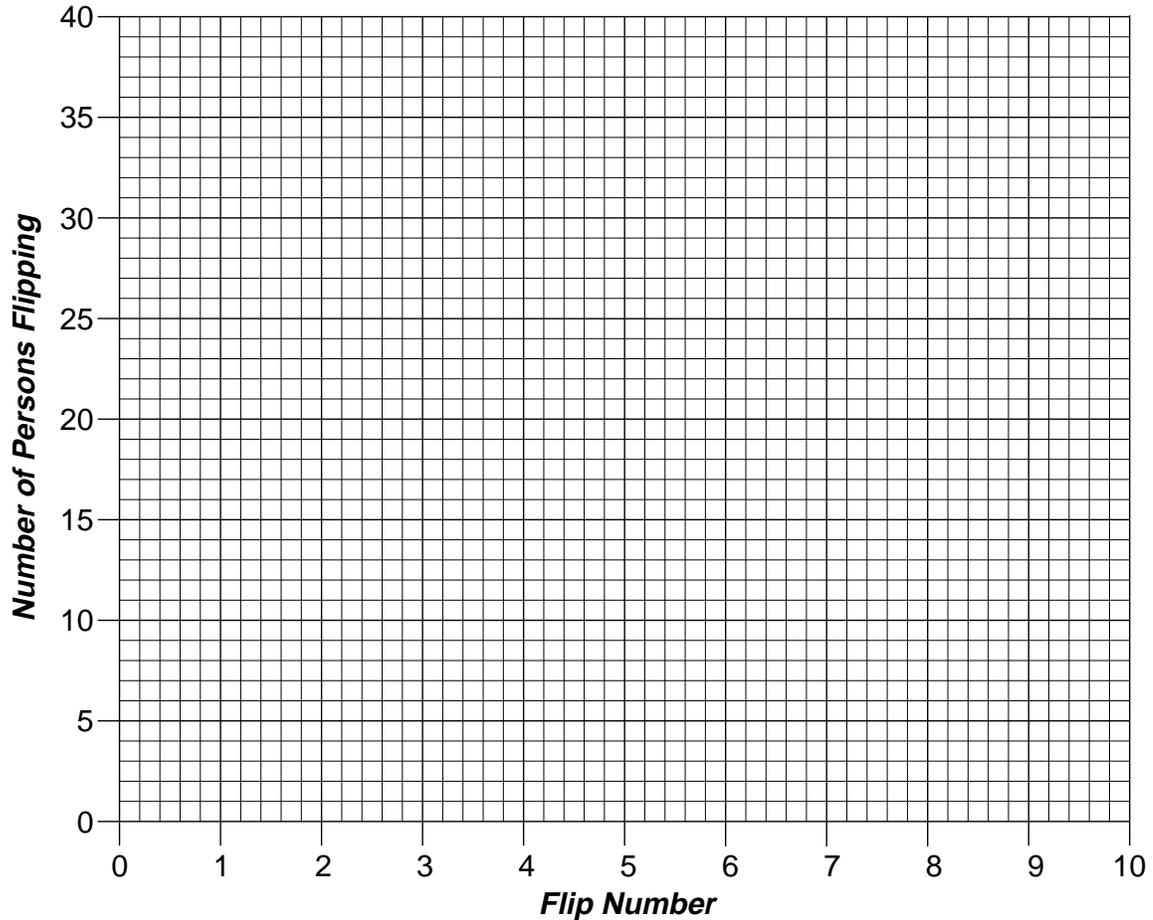
In this activity, everybody has a penny. The discussion leader and participants flip the pennies.

Everyone whose penny matches the leader's flip has "decayed," while those whose penny is different are still "radioactive."

Each time, those who have "decayed" are out.

Count the number out and record the results as indicated on the chart. Then those who are still playing flip again. Continue until everyone is out. Plot the results on the graph below.

Flip Number	Number Decayed	Number Radioactive
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		



Is the number of participants out each turn always one half the number flipped? No.

Why or why not? (This is an average. Just as radioactive decay is random, so is flipping a coin.)
