

Experimenting with Probability

NCTM Standards 5, 6, 7, 8, 9, 10

Imagine that you toss two coins: a penny and a nickel. Each coin shows either heads or tails. You record the number of heads.



- 1 What number of heads do you think is most likely? Prediction: _____

- 2 Complete the table to show the number of heads for each pair of possible results.

		nickel shows	
		H	T
penny shows	H		
	T		

- 3 How many ways are there to get . . .

0 heads? _____

1 head? _____

2 heads? _____

- 4 Toss a nickel and a penny 20 times and record the number of heads each time by making a tally mark in the correct row of this table.

0 heads	
1 head	
2 heads	

- 5 Which number of heads occurred most often for you?
- _____

Imagine that you toss three coins: a penny, a nickel, and a dime. You record the number of heads each time.



6 Complete the table to show each possible result and the total number of heads.

Penny	Nickel	Dime	Number of Heads
H	H	H	3
H	H	T	2

7 Is 0 heads more likely than 1 head? Explain.

8 Is 1 head more likely than 2 heads? Explain.

9 **Challenge** Is it more likely the penny will show heads than the nickel will show heads? Explain.
