

Thomas Nelson Community College

NAS 206
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Binomial Distribution
Week of January 21

1. Find the probability that in five tosses of a fair die a 3 appears:
 - never
 - once
 - twice
 - 3 times
 - 4 times
 2. Suppose that the probability that an individual suffers a bad reaction from a vaccine is 0.001. Determine the probability that out of 2000 individuals:
 - Exactly 3 people have a reaction
 - More than 2 people have a reaction
 3. Take 10 coins. Toss the 10 coins 100 times. For each toss, record the number of heads: a number between 0 and 10.
 - Make a frequency plot (histogram) of the results.
 - Compute the probability of having 5 heads in a toss.
 - Compute the probability of having no heads in a toss.
 - Are your results of no heads and 5 heads consistent with your computed probabilities?
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