

**I. Find each probability if a coin is tossed 4 times.**

- 1.) P (exactly 4 heads) 6.25%      2.) P (0 heads) 6.25%      3.) P (exactly 3 heads) 25%  
 4.) P (exactly 2 heads) 37.5%      5.) P (exactly 1 head) 25%      6.) P (at least 3 heads) 31.25%

**II. Find each probability if a die is rolled 3 times.**

- 7.) P (exactly one 2) 34.7%      8.) P (exactly two 2's) 6.9%  
 9.) P (exactly three 2's) .46%      10.) P (at most one 2) 92.6%

**III. A town that presents a fireworks display during its July 4 celebration found the probability that a family with two or more children will watch the fireworks is 60%. If 5 of these families are selected at random, find each probability.**

- 11.) P (exactly 3 families watch the fireworks) 34.6%      12.) P (exactly 2 families watch the fireworks) 23%  
 13.) P (exactly 5 families watch the fireworks) 7.8%      14.) P (no families watch the fireworks) 1%  
 15.) P (at least 4 families watch the fireworks) 33.7%      16.) P (at most 2 families watches the fireworks) 31.7%

**IV. One section of a standardized English language test has 10 true/false questions. Find each probability when a student guesses at all ten questions.**

- 17.) P (exactly 8 correct) 4.4%      18.) P (exactly 40% correct) 20.5%  
 19.) P (exactly half correct) 24.6%      20.) P (all 10 correct) .00098%  
 21.) P (0 correct) .098%      22.) P (at least 7 correct) 17.2%

**V. The probability of Chris making a free-throw is 67% and he shoots 5 times. If he shoots 5 times, find each probability.**

- 23.) P (all shots are missed) .39%      24.) P (all shots are made) 13.5%  
 25.) P (exactly 2 shots made) 16.1%      26.) P (exactly 1 missed) 33.2%  
 27.) P (at least 3 made) 79.5%      28.) P (at most 2 made) 20.5%

**VI. In 2001, the American Heart Association reported that 50 percent of the Americans who Receive heart transplants are ages 50 – 64 and 20 percent are ages 35 – 49.**

- 29.) In a randomly selected group of 10 heart transplants recipients, what is the probability that at least 8 of them are ages 50 – 64? 5.5%  
 30.) In a randomly selected group of 5 heart transplants recipients, what is the probability that 2 of them are ages 35 – 49? 20.5%