

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

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| 1.) P (exactly 4 heads) | 2.) P (0 heads) | 3.) P (exactly 3 heads) |
| 4.) P (exactly 2 heads) | 5.) P (exactly 1 head) | 6.) P (at least 3 heads) |

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

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| 7.) P (exactly one 2) | 8.) P (exactly two 2's) |
| 9.) P (exactly three 2's) | 10.) P (at most one 2) |

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.

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| 11.) P (exactly 3 families watch the fireworks) | 12.) P (exactly 2 families watch the fireworks) |
| 13.) P (exactly 5 families watch the fireworks) | 14.) P (no families watch the fireworks) |
| 15.) P (at least 4 families watch the fireworks) | 16.) P (at most 2 families watches the fireworks) |

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.

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| 17.) P (exactly 8 correct) | 18.) P (exactly 40% correct) |
| 19.) P (exactly half correct) | 20.) P (all 10 correct) |
| 21.) P (0 correct) | 22.) P (at least 7 correct) |

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

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| 23.) P (all shots are missed) | 24.) P (all shots are made) |
| 25.) P (exactly 2 shots made) | 26.) P (exactly 1 missed) |
| 27.) P (at least 3 made) | 28.) P (at most 2 made) |

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?
- 30.) In a randomly selected group of 5 heart transplants recipients, what is the probability that 2 of them are ages 35 – 49?