

MA 110 Quiz 8

Multiple Choice. Choose the one alternative that best completes the statement or answers the question. Put the **letter** of your answer in the box provided.

E 1. The number of ways that 4 books can be put into two **equal** piles*, one pile to keep and the other to give away is

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|------|---|-------|
| a. 1 | $\begin{array}{r} 4 \times 3 \\ \hline \times 1 = 6 \\ 2 \\ \text{keep} \quad \text{give away} \end{array}$ | e. 6 |
| b. 2 | | f. 8 |
| c. 3 | | g. 12 |
| d. 4 | | h. 24 |

*Hint: order does not matter in a pile, but whether you keep a book or give it away does.
 Since “equal” was omitted from the original question on the quiz, one possible correct answer (16) is not listed. Hence this problem was not counted in grading the quiz.

G 2. Two fair coins are tossed and the sequence of heads and tails that shows up is observed. The probability that at least one head is observed is

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|--------|--------|
| a. 0 | e. 1/2 |
| b. 1/8 | f. 2/3 |
| c. 1/4 | g. 3/4 |
| d. 1/3 | h. 1 |

D 3. A fair 6-sided die is rolled. The probability that the number showing up is even is

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| a. 0 | e. 2/3 |
| b. 1/6 | f. 5/6 |
| c. 1/3 | g. 1 |
| d. 1/2 | h. 3 |

E 4. A box contains 3 red marbles and 2 white. A marble is drawn from the box at random. The probability that the marble drawn is red is

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|--------|--------|
| a. 0 | e. 3/5 |
| b. 1/5 | f. 4/5 |
| c. 2/5 | g. 1 |
| d. 1/2 | h. 5 |