

NAME: \_\_\_\_\_

- If the sample space is  $\{2, 15, 16, 25\}$ , which function represents a probability distribution?
  - [A]  $P(2) = 0.15, P(15) = 0.15, P(16) = 0.55, P(25) = 0.25$
  - [B]  $P(2) = 0.15, P(15) = 0.15, P(16) = 0.45, P(25) = 0.2$
  - [C]  $P(2) = 0.2, P(15) = 0.15, P(16) = 0.55, P(25) = 0.1$
  - [D]  $P(2) = 0.15, P(15) = 0.15, P(16) = 0.5, P(25) = 0.1$
- Which of the following could be a probability distribution for the sample space  $\{\text{green, blue, yellow}\}$ ?
  - [A]  $P(\text{green}) = \frac{1}{2}, P(\text{blue}) = \frac{1}{3}, P(\text{yellow}) = \frac{1}{5}$
  - [B]  $P(\text{green}) = 0.4, P(\text{blue}) = 0.5, P(\text{yellow}) = 0.2$
  - [C]  $P(\text{green}) = 0.3, P(\text{blue}) = 0.4, P(\text{yellow}) = 0.3$
  - [D]  $P(\text{green}) = 0.8, P(\text{blue}) = 0.1, P(\text{yellow}) = 0.01$

- Compare the quantity in Column A with the quantity in Column B.  
This table shows the probability distribution for the sample space  $\{1, 2, 3, 4, 5\}$ .

$e$	1	2	3	4	5
$P(e)$	0.12	0.21	0.43	0.13	0.11

Column A

Column B

$P(e < 3)$

$P(3)$

- [A] The quantity in Column A is greater.
- [B] The quantity in Column B is greater.
- [C] The two quantities are equal.
- [D] The relationship cannot be determined on the basis of the information supplied.

- A jar contains 3 dimes and 10 quarters. Two coins are removed from the jar, one after the other, without replacement, and the total value of the two coins is recorded. Find the appropriate sample space for this experiment and find the probability of each sample event in the sample space.

[A] 

$x_i$	\$0.20	\$0.35	\$0.50
$P_i$	0.333	0.333	0.333

[B] 

$x_i$	\$0.20	\$0.35	\$0.50
$P_i$	0.038	0.385	0.577

[C] 

$x_i$	\$0.20	\$0.35	\$0.50
$P_i$	0.115	0.5	0.385

[D] 

$x_i$	\$0.20	\$0.35	\$0.50
$P_i$	0.333	0.567	0.1

[1] C

[2] C

[3] B

[4] B