Activity 4.7.1: Probability of an Event

Total points = 36

1. Answers

1.1 $P(\text{two heads}) = \dfrac{n(\text{two heads})}{n(S)}$ ✓

$P(\text{two heads}) = \dfrac{3}{8}$ ✓

1.2 $P(\text{at least two heads}) = \dfrac{n(\text{at least two heads})}{n(S)}$ ✓

$P(\text{at least two heads}) = \dfrac{4}{8}$ ✓

$P(\text{at least two heads}) = \dfrac{1}{2}$ ✓

1.3 $P(\text{no tail}) = \dfrac{n(\text{no tail})}{n(S)}$ ✓

$P(\text{no tail}) = \dfrac{1}{8}$ ✓

2. Answers

2.1 $P(\text{sum of five}) = \dfrac{n(\text{sum of five})}{n(S)}$ ✓

$P(\text{sum of five}) = \dfrac{4}{36}$ ✓

$P(\text{sum of five}) = \dfrac{1}{9}$ ✓

2.2 $P(\text{sum is prime}) = \dfrac{n(\text{sum is prime})}{n(S)}$ ✓

$P(\text{sum is prime}) = \dfrac{15}{36}$ ✓

$P(\text{sum is prime}) = \dfrac{5}{12}$ ✓

2.3 $P(\text{sum greater than 9}) = \dfrac{n(\text{sum greater than 9})}{n(S)}$ ✓

$P(\text{sum greater than 9}) = \dfrac{6}{36}$ ✓

$P(\text{sum greater than 9}) = \dfrac{1}{6}$ ✓

2.4 $P(\text{not a double}) = 1 - P(\text{a double})$ ✓

$P(\text{not a double}) = 1 - \dfrac{6}{36}$ ✓

$P(\text{not a double}) = \dfrac{30}{36}$ ✓

$P(\text{not a double}) = \dfrac{5}{6}$ ✓

3. Answers

3.1 $P(\text{red number card}) = \dfrac{n(\text{red number card})}{n(S)}$ ✓

$P(\text{red number card}) = \dfrac{18}{52}$ ✓

$P(\text{red number card}) = \dfrac{9}{26}$ ✓

3.2 $P(\text{not a heart}) = 1 - P(\text{a heart})$ ✓

$P(\text{not a heart}) = 1 - \dfrac{13}{52}$ ✓

$P(\text{not a heart}) = \dfrac{39}{52}$ ✓

$P(\text{not a heart}) = \dfrac{3}{4}$ ✓

3.3 $P(\text{a black ace}) = \dfrac{n(\text{a black ace})}{n(S)}$ ✓

$P(\text{a black ace}) = \dfrac{2}{52}$ ✓

$P(\text{a black ace}) = \dfrac{1}{26}$ ✓

4. Answers

4.1 $P(\text{M}) = \dfrac{n(\text{M})}{n(S)}$ ✓

$P(\text{M}) = \dfrac{2}{11}$ ✓

4.2 $P(\text{first half}) = \dfrac{n(\text{first half})}{n(S)}$ ✓

$P(\text{first half}) = \dfrac{8}{11}$ ✓

4.3 $P(\text{C}) = \dfrac{n(\text{C})}{n(S)}$ ✓

$P(\text{C}) = \dfrac{1}{11}$ ✓

Typeset by Jonathan Rufo Bacolod using LaTeX

Activity 4.7.1: Probability of an Event

Total points = 36

1. Answers

1.1 $P(\text{two heads}) = \dfrac{n(\text{two heads})}{n(S)}$ ✓

$P(\text{two heads}) = \dfrac{3}{8}$ ✓

1.2 $P(\text{at least two heads}) = \dfrac{n(\text{at least two heads})}{n(S)}$ ✓

$P(\text{at least two heads}) = \dfrac{4}{8}$ ✓

$P(\text{at least two heads}) = \dfrac{1}{2}$ ✓

1.3 $P(\text{no tail}) = \dfrac{n(\text{no tail})}{n(S)}$ ✓

$P(\text{no tail}) = \dfrac{1}{8}$ ✓

2. Answers

2.1 $P(\text{sum of five}) = \dfrac{n(\text{sum of five})}{n(S)}$ ✓

$P(\text{sum of five}) = \dfrac{4}{36}$ ✓

$P(\text{sum of five}) = \dfrac{1}{9}$ ✓

2.2 $P(\text{sum is prime}) = \dfrac{n(\text{sum is prime})}{n(S)}$ ✓

$P(\text{sum is prime}) = \dfrac{15}{36}$ ✓

$P(\text{sum is prime}) = \dfrac{5}{12}$ ✓

2.3 $P(\text{sum greater than 9}) = \dfrac{n(\text{sum greater than 9})}{n(S)}$ ✓

$P(\text{sum greater than 9}) = \dfrac{6}{36}$ ✓

$P(\text{sum greater than 9}) = \dfrac{1}{6}$ ✓

2.4 $P(\text{not a double}) = 1 - P(\text{a double})$ ✓

$P(\text{not a double}) = 1 - \dfrac{6}{36}$ ✓

$P(\text{not a double}) = \dfrac{30}{36}$ ✓

$P(\text{not a double}) = \dfrac{5}{6}$ ✓

3. Answers

3.1 $P(\text{red number card}) = \dfrac{n(\text{red number card})}{n(S)}$ ✓

$P(\text{red number card}) = \dfrac{18}{52}$ ✓

$P(\text{red number card}) = \dfrac{9}{26}$ ✓

3.2 $P(\text{not a heart}) = 1 - P(\text{a heart})$ ✓

$P(\text{not a heart}) = 1 - \dfrac{13}{52}$ ✓

$P(\text{not a heart}) = \dfrac{39}{52}$ ✓

$P(\text{not a heart}) = \dfrac{3}{4}$ ✓

3.3 $P(\text{a black ace}) = \dfrac{n(\text{a black ace})}{n(S)}$ ✓

$P(\text{a black ace}) = \dfrac{2}{52}$ ✓

$P(\text{a black ace}) = \dfrac{1}{26}$ ✓

4. Answers

4.1 $P(\text{M}) = \dfrac{n(\text{M})}{n(S)}$ ✓

$P(\text{M}) = \dfrac{2}{11}$ ✓

4.2 $P(\text{first half}) = \dfrac{n(\text{first half})}{n(S)}$ ✓

$P(\text{first half}) = \dfrac{8}{11}$ ✓

4.3 $P(\text{C}) = \dfrac{n(\text{C})}{n(S)}$ ✓

$P(\text{C}) = \dfrac{1}{11}$ ✓