

Dual Probability / Two Events / Combined Probability

1. Two normal 6-sided dice are thrown and the scores are added together. Make a table to show the probabilities and then use it to find:

- a) $P(12)$
- b) $P(11)$
- c) $P(7)$
- d) $P(10)$
- e) $P(<6)$
- f) $P(\leq 6)$

- g) $P(\text{both dice show odd numbers})$
- h) $P(\text{both dice show the same number})$

2. Two normal coins are flipped. Make a table to show the probabilities and then use it to find:

- a) $P(2 \text{ heads})$
- b) $P(\text{a head and a tail in any order})$

3. A coin and a dice are thrown. Make a table to show the probabilities and then use it to find:

- a) $P(\text{head and } 6)$
- b) $P(\text{tail and } 5)$
- c) $P(\text{head and an even number})$
- d) $P(\text{not a head and an even number})$

4. Two spinners, both numbered 1-5, are spun and the scores are added together. Make a table to show the probabilities and then use it to find:

- a) $P(<5)$
- b) $P(\leq 5)$
- c) $P(\geq 7)$
- d) $P(\text{both spinners show even numbers})$
- e) $P(\text{an odd and an even number, in any order})$

5. Two different spinners, one numbered 1-4 and the other 1-7, are spun and the scores added together. Make a table to show the probabilities and then use it to find:

- a) $P(7)$
- b) $P(<10)$
- c) $P(>9)$
- d) $P(3 \text{ or } 6)$
- e) $P(\leq 11)$
- f) $P(>11)$

- g) $P(\text{both spinners show the same number})$

6. Two normal 6-sided dice are thrown and the difference of the scores is found. Make a table to show the probabilities and then use it to find:

- a) $P(0)$
- b) $P(1 \text{ or } 2)$
- c) $P(6)$

Dual Probability / Two Events / Combined Prob - Answers

- Two normal 6-sided dice are thrown and the scores are added together. Make a table to show the probabilities and then use it to find:
 - $P(12) \frac{1}{36}$
 - $P(11) \frac{2}{36} = \frac{1}{18}$
 - $P(7) \frac{6}{36} = \frac{1}{6}$
 - $P(10) \frac{3}{36} = \frac{1}{12}$
 - $P(<6) \frac{10}{36} = \frac{5}{18}$
 - $P(\leq 6) \frac{15}{36} = \frac{5}{12}$
 - $P(\text{both dice show odd numbers}) \frac{9}{36} = \frac{1}{4}$
 - $P(\text{both dice show the same number}) \frac{6}{36} = \frac{1}{6}$
- Two normal coins are flipped. Make a table to show the probabilities and then use it to find:
 - $P(2 \text{ heads}) \frac{1}{4}$
 - $P(\text{a head and a tail in any order}) \frac{2}{4} = \frac{1}{2}$
- A coin and a dice are thrown. Make a table to show the probabilities and then use it to find:
 - $P(\text{head and } 6) \frac{1}{12}$
 - $P(\text{tail and } 5) \frac{1}{12}$
 - $P(\text{head and an even number}) \frac{3}{12} = \frac{1}{4}$
 - $P(\text{not a head and an even number}) \frac{3}{4} \text{ or } \frac{1}{4} \text{ (emphasis on question)}$
- Two spinners, both numbered 1-5, are spun and the scores are added together. Make a table to show the probabilities and then use it to find:
 - $P(<5) \frac{6}{25}$
 - $P(\leq 5) \frac{10}{25} = \frac{2}{5}$
 - $P(\geq 7) \frac{10}{25} = \frac{2}{5}$
 - $P(\text{both spinners show even numbers}) \frac{4}{25}$
 - $P(\text{an odd and an even number, in any order}) \frac{12}{25}$
- Two different spinners, one numbered 1-4 and the other 1-7, are spun and the scores added together. Make a table to show the probabilities and then use it to find:
 - $P(7) \frac{4}{28} = \frac{1}{7}$
 - $P(<10) \frac{25}{28}$
 - $P(>9) \frac{3}{28}$
 - $P(3 \text{ or } 6) \frac{6}{28} = \frac{3}{14}$
 - $P(\leq 11) \frac{28}{28} = 1$
 - $P(>11) \frac{0}{28} = 0$
 - $P(\text{both spinners show the same number}) \frac{4}{28} = \frac{1}{7}$
- Two normal 6-sided dice are thrown and the difference of the scores is found. Make a table to show the probabilities and then use it to find:
 - $P(0) \frac{6}{36} = \frac{1}{6}$
 - $P(1 \text{ or } 2) \frac{18}{36} = \frac{1}{2}$
 - $P(6) \frac{0}{36} = 0$