

Probabilities that Add to 1

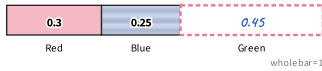
ANSWERS

1

A spinner lands on red, blue or green.

Outcome	Red	Blue	Green
Probability	0.3	0.25	?

Work out the probability of green.



$$1 - (0.3 + 0.25) = 0.45$$

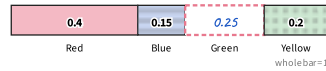
Answer 0.45

2

A bag holds four colours of counter.

Outcome	Red	Blue	Green	Yellow
Probability	0.4	0.15	?	0.2

Work out the probability of green.



$$1 - (0.4 + 0.15 + 0.2) = 0.25$$

Answer 0.25

3

The probability it rains tomorrow is 0.6.

Outcome	Rain	No rain
Probability	0.6	?

Work out the probability of no rain.



$$1 - (0.6) = 0.4$$

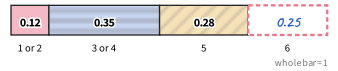
Answer 0.4

4

A biased dice is rolled.

Outcome	1 or 2	3 or 4	5	6
Probability	0.12	0.35	0.28	?

Work out the probability of 6.



$$1 - (0.12 + 0.35 + 0.28) = 0.25$$

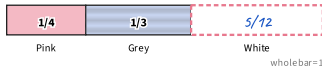
Answer 0.25

5

A spinner has three colours.

Outcome	Pink	Grey	White
Probability	1/4	1/3	?

Work out the probability of white.



$$1 - (1/4 + 1/3) = 5/12$$

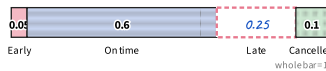
Answer 5/12

6

A bus can be early, on time, late or cancelled.

Outcome	Early	On time	Late	Cancelled
Probability	0.05	0.6	?	0.1

Work out the probability of late.



$$1 - (0.05 + 0.6 + 0.1) = 0.25$$

Answer 0.25

7

Four teams can win a quiz.

Outcome	A	B	C	D
Probability	0.07	0.48	0.19	?

Work out the probability of d.



$$1 - (0.07 + 0.48 + 0.19) = 0.26$$

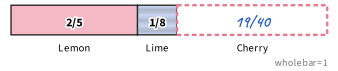
Answer 0.26

8

A bag holds three flavours of sweet.

Outcome	Lemon	Lime	Cherry
Probability	2/5	1/8	?

Work out the probability of cherry.



$$1 - (2/5 + 1/8) = 19/40$$

Answer 19/40

Probabilities that Add to 1 further practice

ANSWERS

9

A school bus can arrive early, on time or late. Find the probability that the bus arrives late.

Outcome	Early	On time	Late
Probability	1/6	2/3	1/6

$$1 - (1/6 + 2/3) = 1/6$$

Answer 1/6

10

A spinner can land on red, blue, green or yellow. Blue and green are equally likely. Find the probability that it lands on blue.

Outcome	Red	Blue	Green	Yellow
Probability	0.4	0.2	0.2	0.2

$$1 - 0.6 = 0.4, \text{ and } 0.4 \div 2 = 0.2$$

Answer 0.2

11

A biased four-sided dice has faces A, B, C and D. Landing on D is twice as likely as landing on C. Find the probability of landing on D.

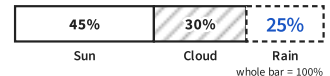
Outcome	A	B	C	D
Probability	0.25	0.15	0.2	0.4

$$C + D = 0.6, \text{ which is 3 parts of } 0.2$$

Answer 0.4

12

A weather forecast says there is a 45% chance of sun, a 30% chance of cloud and that the only other possibility is rain. What is the probability of rain? Give your answer as a decimal.



$$100\% - 75\% = 25\%$$

Answer 0.25

13

A bag holds only red, blue and white counters. One counter is taken at random. There are 8 white counters. How many counters are in the bag?

Colour	Red	Blue	White
Probability	0.3	0.5	0.2

$$0.2 \text{ is 8 counters, so } 1 \text{ is } 40$$

Answer 40 counters

14

A train journey can be on time, a little late or very late. Find the probability that the train is very late. Give your answer as a decimal.

Outcome	On time	A little late	Very late
Probability	0.35	1/4	0.4

$$1/4 = 0.25, \text{ so } 1 - 0.6 = 0.4$$

Answer 0.4

15

Lucy wrote this probability table for a biased spinner. Explain how you know that Lucy's table must be wrong.

Outcome	1	2	3	4
Probability	0.35	0.4	0.15	0.2

Answer they add up to 1.1, not 1

16

A hockey match can end in a win, a draw or a loss. The probability that Ali's team wins is 0.45. Ali says the probability that his team loses is 0.55. Explain his mistake.

$$0.55 \text{ is the probability of a draw or a loss}$$

Answer he has left out a draw