Probabilities that Sum to 1 *ramp up*

ANSWERS

a P(red) = 0.3.
Find P(not red).

0.7

not: one minus

b P(win) = $\frac{2}{7}$.
Find P(not win).

$\frac{5}{7}$

not, with a fraction

c Find P(C)

Outcome	A	B	C
Probability	0.2	0.5	?

0.3

a missing probability

d Is this table possible?

Outcome	A	B	C
Probability	0.3	0.5	0.4

No, total 1.2

checking the total is 1

e Only A, B or C can happen.
P(A) = $\frac{1}{4}$, P(B) = $\frac{1}{3}$.
Find P(C).

$\frac{5}{12}$

a missing probability with fractions

f Find P(A or B)

Outcome	A	B	C
Probability	0.15	0.4	0.45

0.55

A or B: add

g Find P(not A)

Outcome	A	B	C
Probability		0.25	0.4

0.65

not A is all the others

h Find P(C)

Outcome	A	B	C	D
Probability	0.1	0.3	x	x

0.3

two equally likely outcomes

i Find P(C)

Outcome	A	B	C	D
Probability	0.1	0.3	$2x$	x

0.4

one outcome twice as likely

j Only A, B or C can happen.
P(not B) = 0.6,
P(A) = 0.3. Find P(C).

0.3

a not probability given

k A bag has 24 red or blue counters.
P(red) = $\frac{3}{8}$.
How many are blue?

15

a count from the other probability

l A fair dice is rolled.
Find P(even or prime).

$\frac{5}{6}$

or when both can happen at once

The Maths Habit

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