GCSE HIGHER · REVISION MAT 2

Probabilities that sum to 1

1 P(win) = 0.08.

Find P(not win).

2 Find x.

Outcome	A	B	C	D
Probability	0.15	0.25	0.4	x

3 Explain why a probability cannot be greater than 1.

4 A spinner is red, blue, green or yellow.

P(red) = 0.1 and P(blue) is twice P(red).

P(green) = P(yellow).

Find P(green).

5 $P(A) = \frac{3}{8}$.

Show that $P(\text{not A}) = \frac{5}{8}$.

6 A bag has 40 sweets.

P(lemon) = 0.25 and P(orange) = 0.35.

The rest are strawberry.

How many are strawberry?

7 A team can win, draw or lose.

P(win) = 0.45 and P(draw) = 0.3.

Explain why P(lose) = 0.25.

8 Find x and P(even).

Score	1	2	3	4
Probability	x	$2x$	$3x$	$4x$

Mr&Mrs MATHS

ANSWERS · REVISION MAT 2

Probabilities that sum to 1

1 0.92

2 $x = 0.2$

3 1 means certain; nothing can be more likely than certain.

4 $1 - 0.1 - 0.2 = 0.7$

0.35

5 $1 - \frac{3}{8} = \frac{5}{8}$

6 P(strawberry) = 0.4

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7 The three outcomes cover everything: 1 – 0.75 = 0.25

8 $10x = 1 \Rightarrow x = 0.1$

P(even) = 0.2 + 0.4 = 0.6

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