

Example 3

A weather forecaster states, "The odds in favour of rain this weekend are 2:5."

- a) Determine the probability that it will not rain this weekend.

$$P(\text{rain}) = \frac{2}{7}$$

- b) State the odds against rain this weekend.

$$5:2$$

Rain
 $P(\text{rain}) = \frac{2}{7}$

$$P(\text{not rain}) = \frac{5}{7}$$

Example 4

The probability of a randomly selected high-school student owning a smartphone is 73%. Determine the odds against a randomly selected high school student owning a smartphone.

$$27:73$$

$$73:27$$

Example 5

The odds against a human having red hair are 25:2. Express the probability of a human having red hair in the following forms:

- a) as a fraction:

$$\frac{2}{27}$$

- b) as a decimal (to two decimal places): 0.07

- c) as a percentage (to two decimal places): 7.41%

$$\frac{2}{27} \times 100 =$$