

Example 1

A box contains 9 marbles. Five marbles are black and the rest are white. One marble is randomly selected from the box.

black, white

- a) Determine the odds in favour of selecting a black marble.

$$5:4$$

- b) Determine the odds in favour of selecting a white marble.

$$4:5$$

- c) Determine the odds against selecting a black marble.

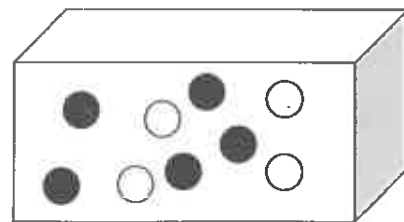
$$4:5$$

- d) Determine the odds against selecting a white marble.

$$5:4$$

- e) Determine the probability of selecting a white marble.

$$P(w) = \frac{4}{9} = \frac{4}{9}$$

**Example 2**

A sports announcer states that "The probability of the Winnipeg Jets winning their game this weekend is $\frac{7}{10}$." According to this prediction,

- a) determine the probability of the Jets losing their game this weekend.

$$1 - \frac{7}{10} = \frac{3}{10}$$

- b) state the odds in favour of the Jets winning their game this weekend.

$$7:3$$

win : losing

- c) state the odds in favour of the Jets losing their game this weekend.

$$3:7$$

- d) state the odds against the Jets winning their game this weekend

$$3:7$$