

7.5 Different Ways to Express Probability May-2

$$\text{Probability} = \frac{\# \text{ of favourable outcomes}}{\text{Total} \# \text{ of outcomes}}$$

Note: We can express probability as : a fraction, decimal, percent or ratio.

Example (1): Rolling a regular 6 sided die.

a) $P(6) = \frac{1}{6} = 0.\overline{16} = 16.\overline{6}\% = 1:6$

\leftarrow 6 appears once
 \leftarrow 6 options altogether
 ↑ probability of rolling a six
 * fraction needs to be in simplest form.*

b) $P(\text{even } \#) = \frac{3}{6} = \frac{1}{2} = 0.5 = 50\% = 1:2$

2, 4, 6
 top:bottom
 move decimal 2 places right

c) $P(\text{greater than 4}) = \frac{2}{6} = \frac{1}{3} = 0.\overline{3} = 33.\overline{3}\% = 1:3$

5, 6
 0.3333...