

$$\text{And, } \tan \theta_2 = \frac{6}{8} = \frac{3}{4} \Rightarrow \theta_2 = \tan^{-1} \left(\frac{3}{4} \right).$$

(3) A ball is travelling with uniform translatory motion. This means that:

(a) It is at rest.

(b) The path can be a straight line, ^{or circular} and the ball travels with uniform speed.

(c) All particles of the ball have the same velocity (magnitude and direction) and the velocity is constant.

(d) The centre of mass of the ball moves with constant velocity and the ball spins about its centre uniformly.

Ans. (c)

Uniform translatory motion occurs when all the particles of the body move with same velocity in same straight line.