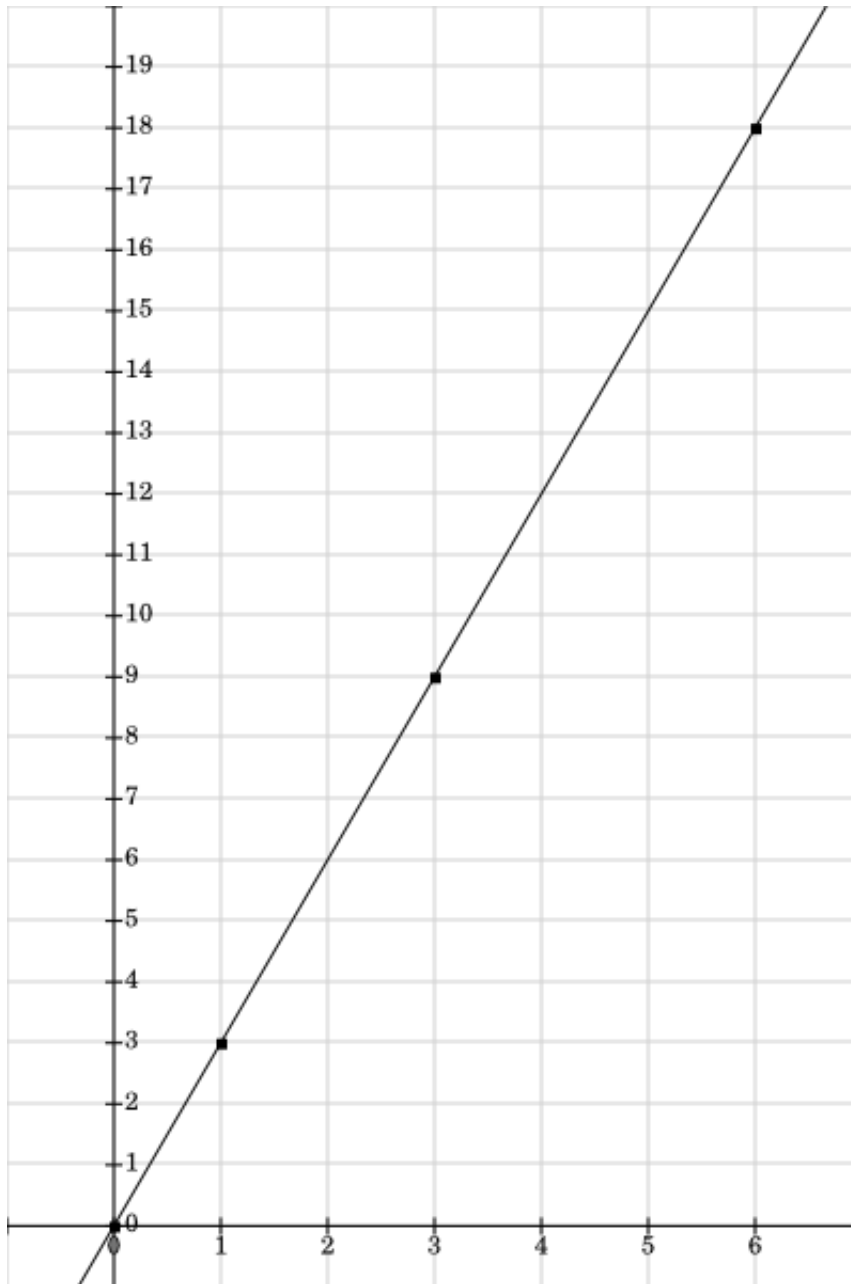A cyclist moves along straight path 3.0 during the first second, 6m during next 2 seconds and 9m during 3 seconds. Describe the motion of the cyclist.

Let plot a distance-time graph:

X – time in seconds, Y – distance in meters.

A straight line on the graph means the object is moving equal distances in equal time. This kind of motion is called a **uniform motion**. The sloped line on the graph is called the gradient, it represents the velocity. To work out the gradient (velocity) we take the vertical reading from the graph where the line finishes and divide it by the horizontal reading where the line finishes. So, velocity equals:

$$v = \frac{18m}{6s} = 3\frac{m}{s}$$

Answer: uniform motion with velocity $3\frac{m}{s}$.