Curves in Space and their Tangents

$r'(t) =$

$$= \frac{df}{dt}i + \frac{dg}{dt}j + \frac{dh}{dt}k$$

Velocity is the _____ derivative of the position.

Acceleration is the derivative of _____, or the _____ derivative of position.

Speed is the _____ of velocity.

Unit Vector=

Velocity= _____ x _____

$r(t) = \left(\cos(2t)\right)i + 3\left(\sin(2t)\right)j$

$r(0) =$

$v(t) =$

$v(0) =$

$a(t) =$

$a(0) =$

$|v| =$

$v =$