

SRI

Life Now. Better. 2012



$$\begin{aligned}
\frac{d}{dt} \left(\frac{1}{2} m \dot{x}^2 \right) &= m \dot{x} \ddot{x} = m \dot{x} \left(-\frac{1}{2} \frac{v^2}{r} \right) = -\frac{1}{2} m \dot{x} \frac{v^2}{r} \\
&= -\frac{1}{2} m \dot{x} \frac{(\dot{x}^2 + \dot{y}^2)}{r} = -\frac{1}{2} m \dot{x} \frac{(\dot{x}^2 + \dot{y}^2)}{r}
\end{aligned}$$
[illegible]