

Formula Sheet for Test 1

$$\frac{ds}{dt} = |\vec{r}'(t)|$$

$$\kappa = \left| \frac{d\vec{T}}{ds} \right|$$

$$\kappa = \frac{|\vec{r}'(t) \times \vec{r}''(t)|}{|\vec{r}'(t)|^3}$$

If $y = f(x)$, then

$$\kappa = \frac{|f''(x)|}{(1 + f'(x)^2)^{3/2}}.$$