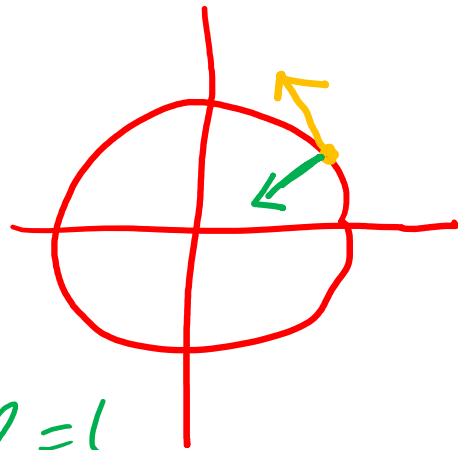
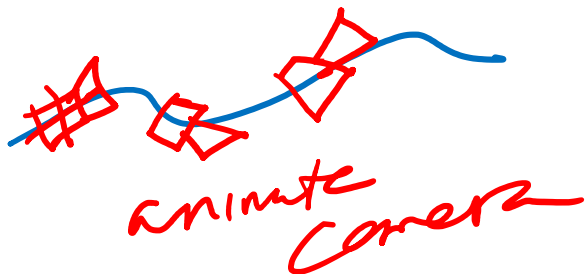
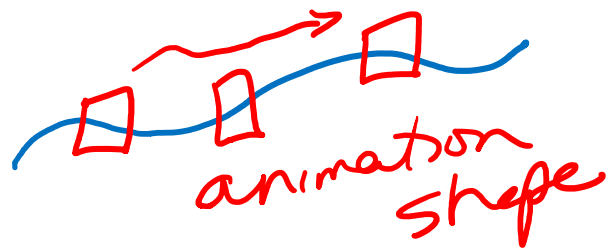
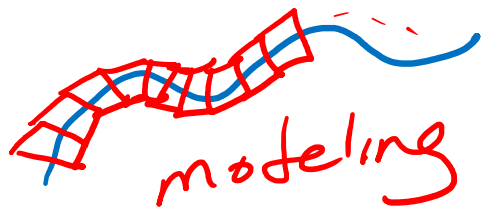


LOCAL COORDINATE FRAME PARAMETRIC CURVE



$$R=1$$
$$P \langle .7, .7 \rangle -$$
$$P' \langle -.7, .7 \rangle -$$
$$P'' \langle -.7, -.7 \rangle -$$

$$P(t) = \langle R \cos t, R \sin t \rangle$$

$$P'(t) = \langle -R \sin t, R \cos t \rangle$$

$$P'(t) = P^\perp(t)$$

$$P(t) \cdot P'(t) = 0$$

$$P''(t) = \langle -R \cos t, -R \sin t \rangle$$

$P'(t)$ and $P''(t)$
give a local frame



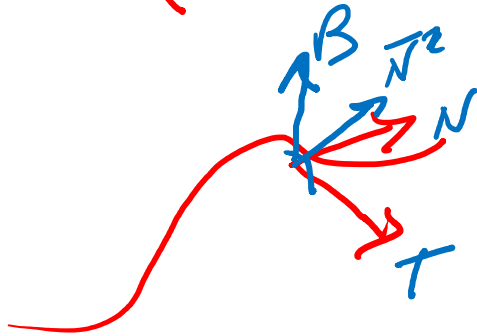
FRENET FRAME

$$p(t) = \langle t, t^2, t^3 \rangle$$

$$p'(t) = \langle 1, 2t, 3t^2 \rangle$$

$$p''(t) = \langle 0, 2, 6t \rangle$$

$$p'(t) \times p''(t)$$



$$\frac{p'(t) \times p''(t)}{}$$

$$= \begin{vmatrix} i & j & k \\ 1 & 2t & 3t^2 \\ 0 & 2 & 6t \end{vmatrix}$$

$$= \langle 6t^2, -6t, 2 \rangle$$

Tangent p'
Normal p''
Binormal $p' \times p''$

$$T \perp B$$

$$T \times B = N$$

