

$$y^2 = 2px$$

$$y^2 = 4x \quad \Rightarrow \quad x \geq 0 \quad \text{parabola}$$

$$y^2 = -6x \quad \Rightarrow \quad x \leq 0$$

The General formula  $y^2 = 2px$

Given  $y^2 = 8x$

$$2p = 8, \quad p = 4$$

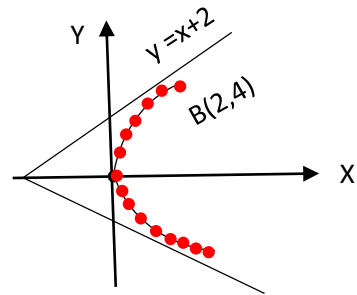
$F(2,0)$  is the focus . The tangent  $\Rightarrow y_1 y = p(x_1 + x)$

$$B(2,4) \Rightarrow 4y = 4(2+x)$$

$$y = 2 + x$$

$$a_{\perp} = 1 \quad a_{\perp} = -1 \Rightarrow \frac{p}{y_1} = -1$$

$$\frac{4}{y_1} = -1 \quad \Rightarrow y_1 = -4 \quad , C(2, -4)$$



$$D\left(\frac{1}{2}, 2\right) \quad 2 \cdot y = 4\left(\frac{1}{2} + x\right)$$

$$y = 2\left(\frac{1}{2} + x\right)$$

$$y = 2x + 1 \quad a_{\perp} = -\frac{1}{2}$$

$$\frac{p}{y_1} = -\frac{1}{2} \Rightarrow \frac{4}{y_1} = -\frac{1}{2} \quad y_1 = -8$$

$$y^2 = 8x$$

$$64 = 8x_1 \Rightarrow x_1 = 8$$

$$E(8, -8)$$

