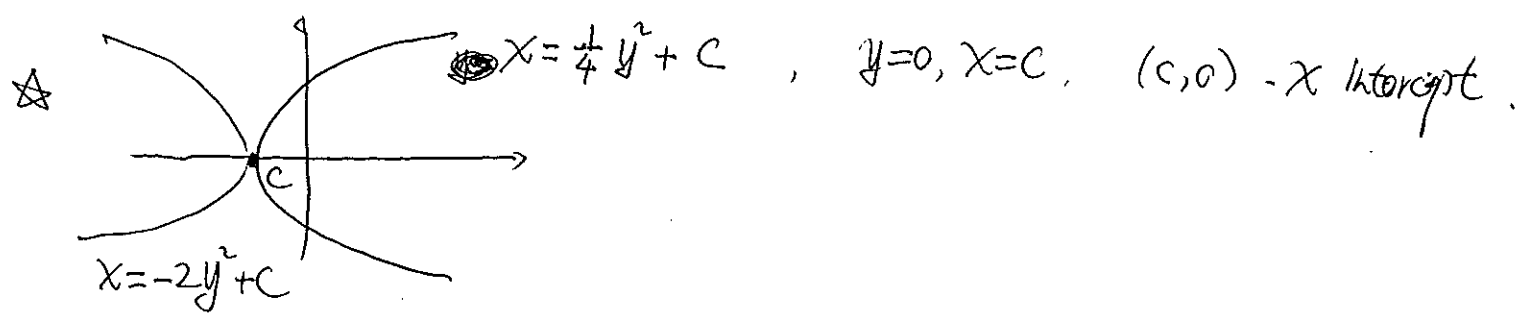
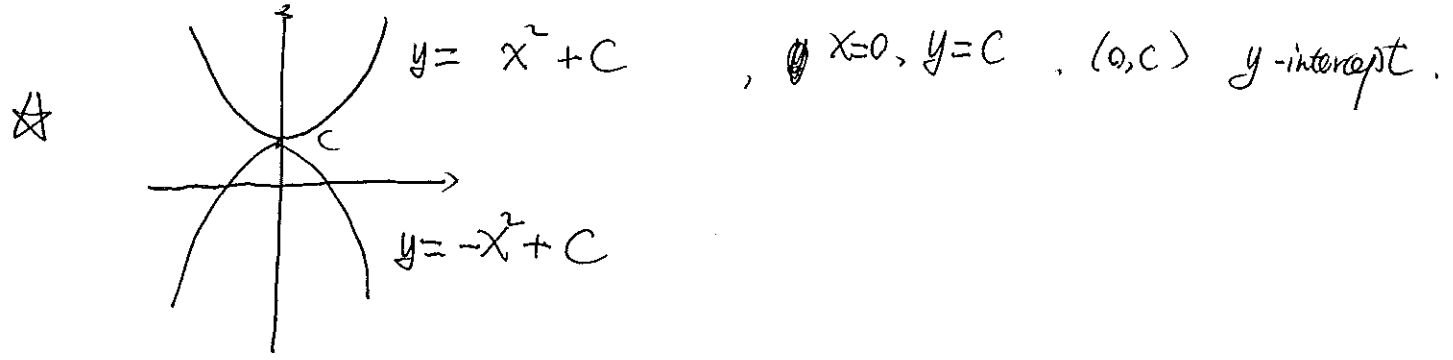
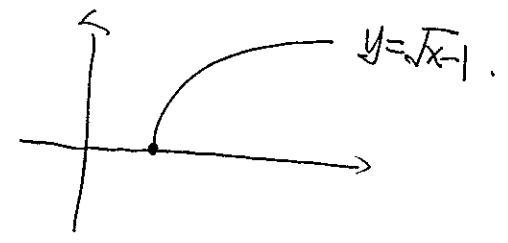


graph of parabola

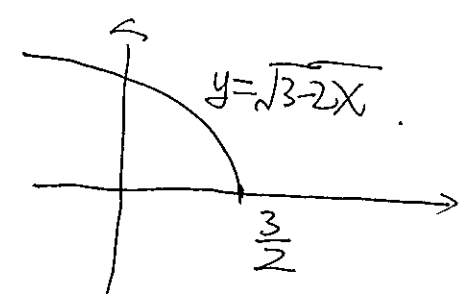


☆☆ half parabola . $y = \sqrt{ax+b}$. with x-intercept $-\frac{b}{a}$

e.g. $y = \sqrt{x-1} \Leftrightarrow y^2 = x-1, y \geq 0$
 $\Leftrightarrow x = y^2 + 1, y \geq 0$
 x-intercept $(1, 0)$



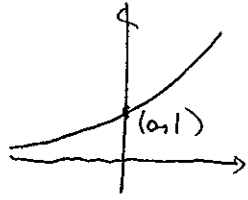
$y = \sqrt{3-2x} \Leftrightarrow y^2 = 3-2x, y \geq 0$
 $\Leftrightarrow 2x = -y^2 + 3, y \geq 0$
 $\Leftrightarrow x = -\frac{1}{2}y^2 + \frac{3}{2}, y \geq 0$
 $y=0 \Rightarrow x = \frac{3}{2}$
 x-intercept $(\frac{3}{2}, 0)$.



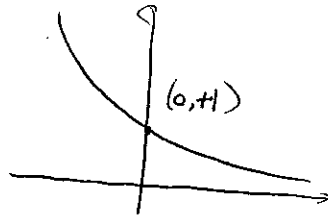
☆ graph of frequently used functions

$y = e^x$

cross point (0,1)

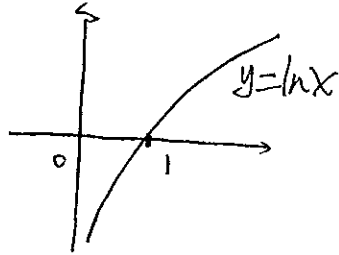


$y = e^{-x}$

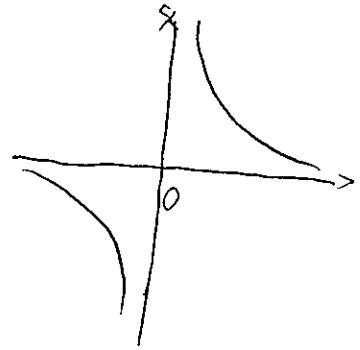


$y = \ln x, x > 0$

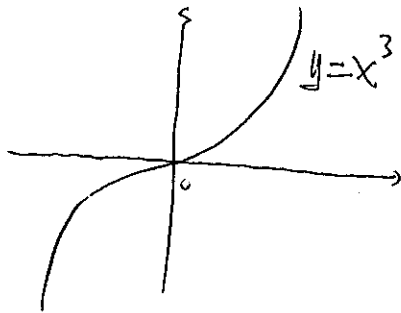
cross point (1,0)



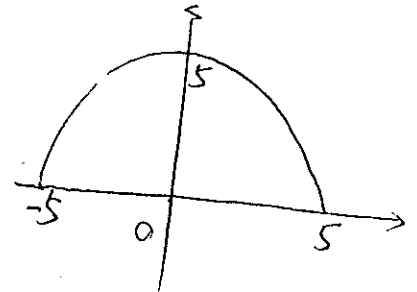
$y = \frac{1}{x}$



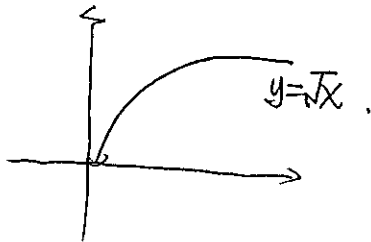
$y = x^3$



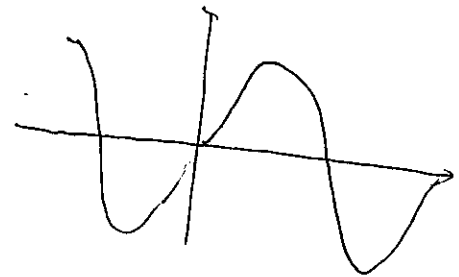
$y = \sqrt{25-x^2}$
(half circle)



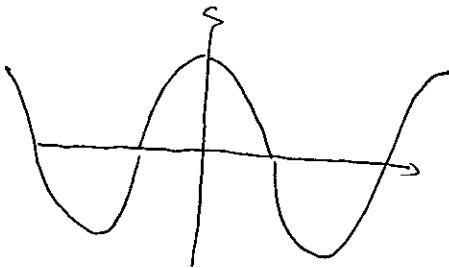
$y = \sqrt{x}$
half parabola



$y = \sin x$



$y = \cos x$



$y = \tan x$

