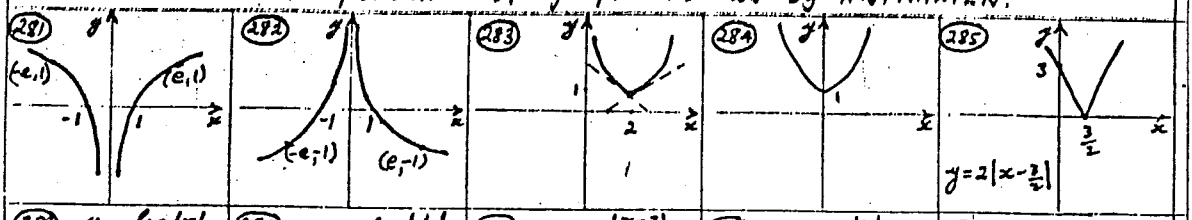
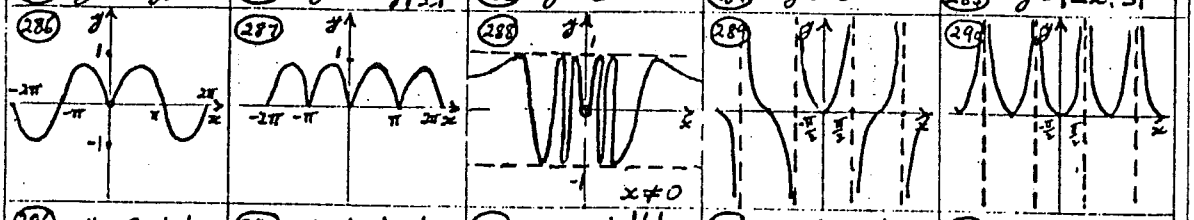
WHAT SKETCH IS THAT?

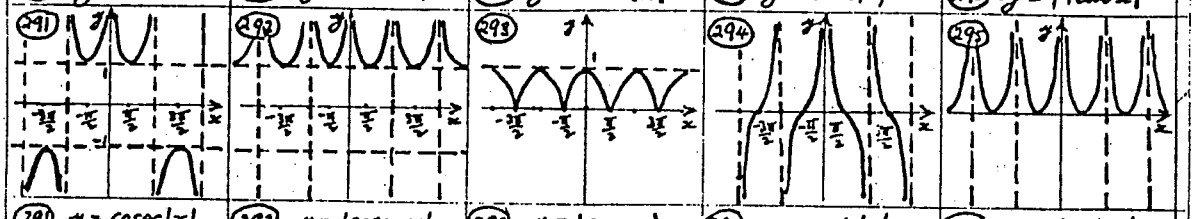
A compendium of graph sketches by A.J. WALTER.



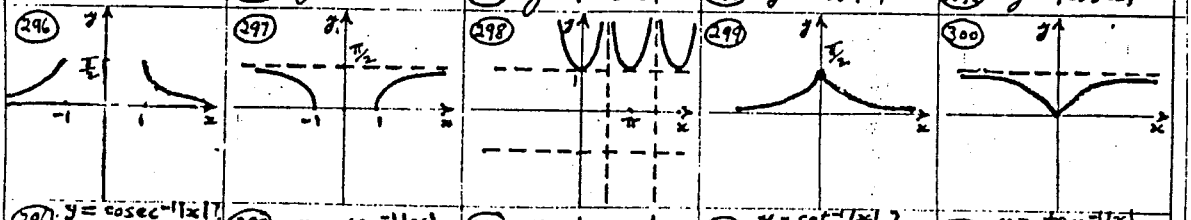
(281) $y = \log_e|x|$ (282) $y = \log\left|\frac{1}{x}\right|$ (283) $y = e^{|x-2|}$ (284) $y = e^{|x|}$ (285) $y = |2x-3|$



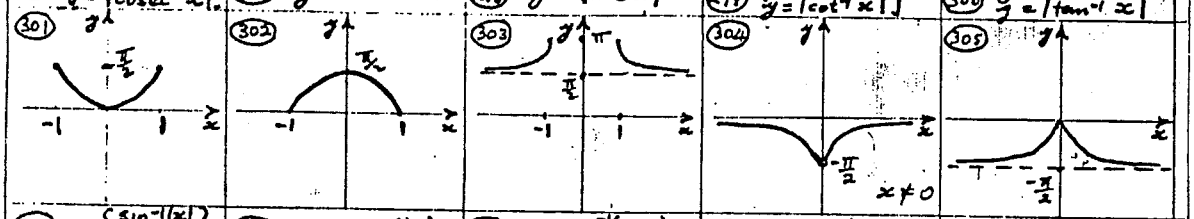
(286) $y = \sin|x|$ (287) $y = |\sin x|$ (288) $y = \sin\left|\frac{1}{x}\right|$ (289) $y = \tan|x|$ (290) $y = |\tan x|$



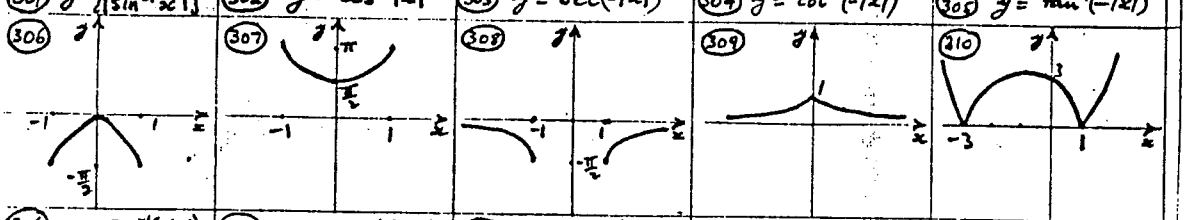
(291) $y = \operatorname{cosec}|x|$ (292) $y = |\operatorname{cosec} x|$ (293) $y = |\cos x|$ (294) $y = \cot|x|$ (295) $y = |\cot x|$



(296) $y = \operatorname{cosec}^{-1}|x|$ or $y = |\operatorname{cosec}^{-1} x|$ (297) $y = \sec^{-1}|x|$ (298) $y = |\sec x|$ (299) $y = \cot^{-1}|x|$ or $y = |\cot^{-1} x|$ (300) $y = \tan^{-1}|x|$ or $y = |\tan^{-1} x|$



(301) $y = \begin{cases} \sin^{-1}|x| \\ |\sin^{-1} x| \end{cases}$ (302) $y = \cos^{-1}|x|$ (303) $y = \sec^{-1}(-|x|)$ (304) $y = \cot^{-1}(-|x|)$ (305) $y = \tan^{-1}(-|x|)$



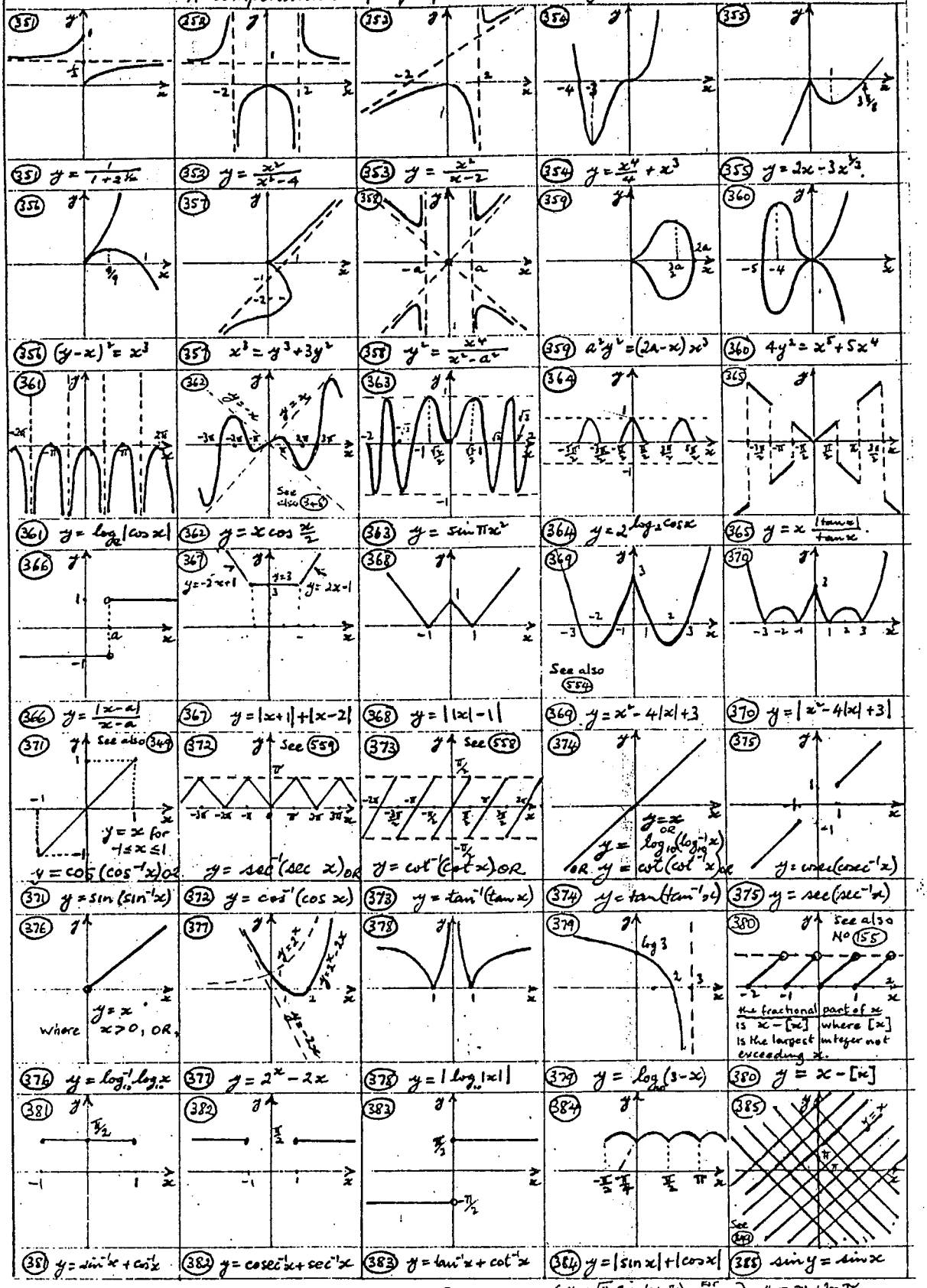
(306) $y = \sin^{-1}(-|x|)$ (307) $y = \cos^{-1}(-|x|)$ (308) $y = \operatorname{cosec}^{-1}(-|x|)$ (309) $y = e^{-|x|}$ (310) $y = |(x+3)(x-1)|$

(311) $y = x + |x-1|$ (312) $y = \tan^{-1}\left|\frac{1}{x-c}\right|$ (313) $y = e^{\frac{1}{|x|}}$ (314) $y = e^{-\frac{1}{|x|}}$ (315) $y = x^2 - |x|$

© SKETCHES INVOLVING ABSOLUTE VALUES.

WHAT SKETCH IS THAT?

A compendium of graph sketches by A.T. WALTER.



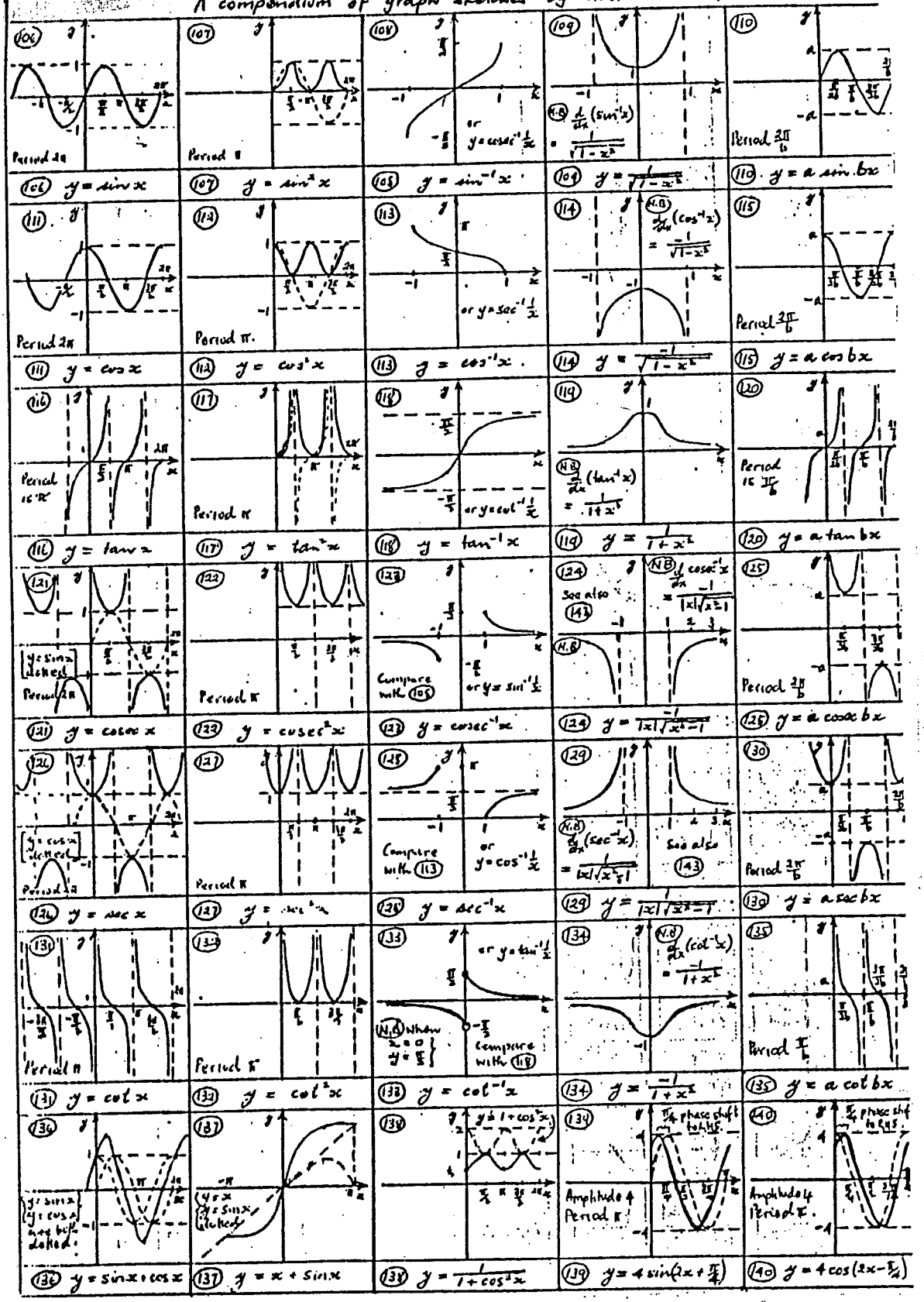
(K) FURTHER MISCELLANEOUS GRAPHS OF RATIONAL & IRRATIONAL RELATIONS, PLUS OTHER TRIG, LOG, EXPONENTIAL & ABSOLUTE VALUE SKETCHES

$y=\sqrt{2}\sin(x+\pi/4)$ $(0\to\frac{\pi}{2})$
$y=\sqrt{2}\sin(x-\pi/4)$ $(\pi/2\to\pi)$
$y=-\sqrt{2}\sin(x+\pi/4)$ $(\pi\to\frac{3\pi}{2})$
$y=-\sqrt{2}\sin(x-\pi/4)$ $(\frac{3\pi}{2}\to 2\pi)$

$y=x+2n\pi$
$y=-x+(2n-1)\pi$
where $n\in\mathbb{J}$ (INTEGERS)
see also (558) & (559)

WHAT SKETCH IS THAT?

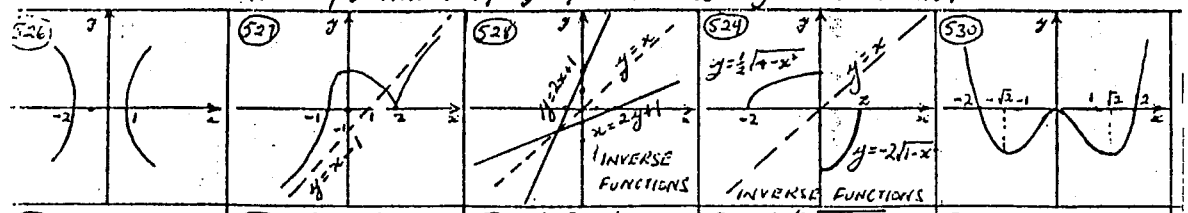
A compendium of graph sketches by A.J. WALTER.



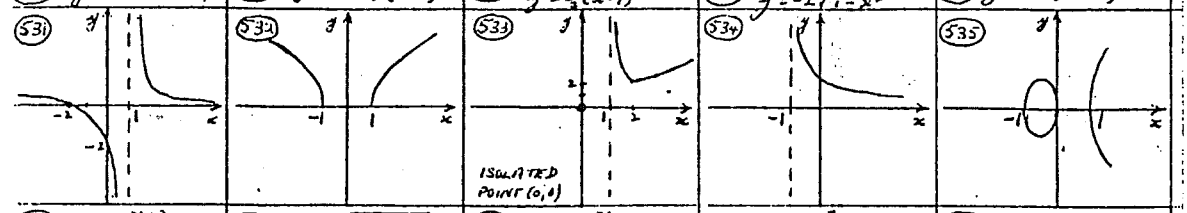
⑥ TRIG, INVERSE TRIG AND RELATED SKETCHES

WHAT SKETCH IS THAT?

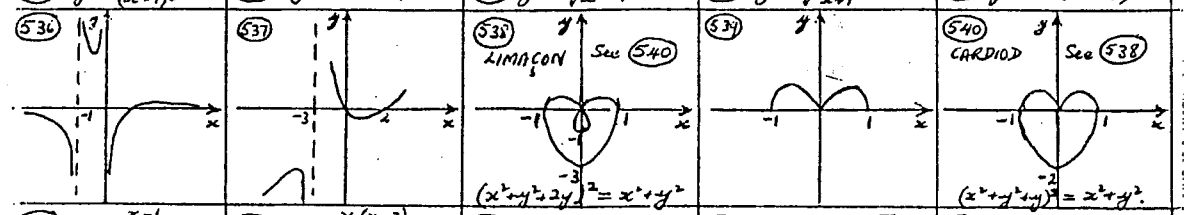
A compendium of graph sketches by A.J. WALTER.



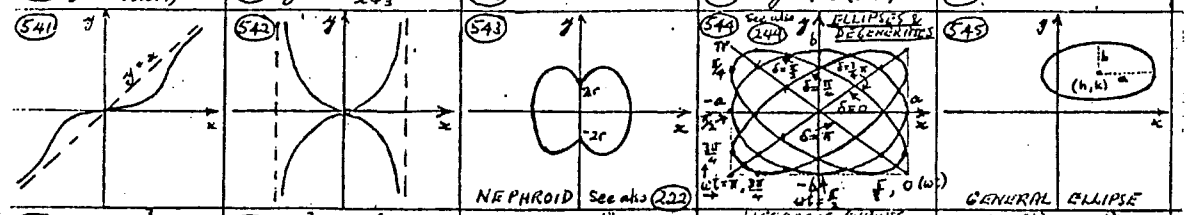
526 $y^2=(x-1)(x+2)$ | 527 $y^3=(x-2)^2(x+1)$ | 528 $y=2x+1$, $y=\frac{1}{2}(x-1)$ | 529 $y=\frac{1}{2}\sqrt{4-x^2}$, $y=-2\sqrt{1-x^2}$ | 530 $y=x^2(x^2-4)$



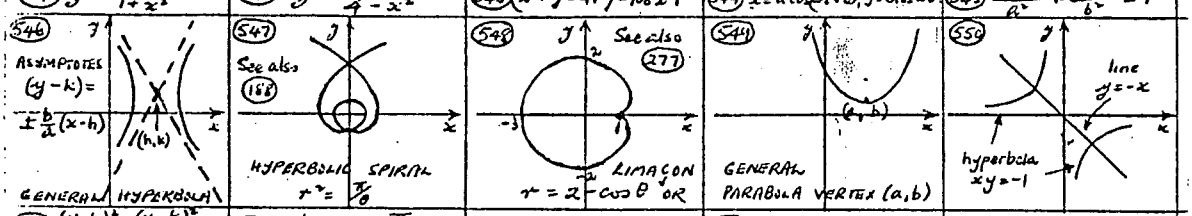
531 $y=\frac{x+2}{(x-1)^3}$ | 532 $y=\sqrt{x^2-1}$ | 533 $y=\frac{x}{\sqrt{x-1}}$ | 534 $y=\frac{2}{\sqrt{x+1}}$ | 535 $y^2=x(x^2-1)$



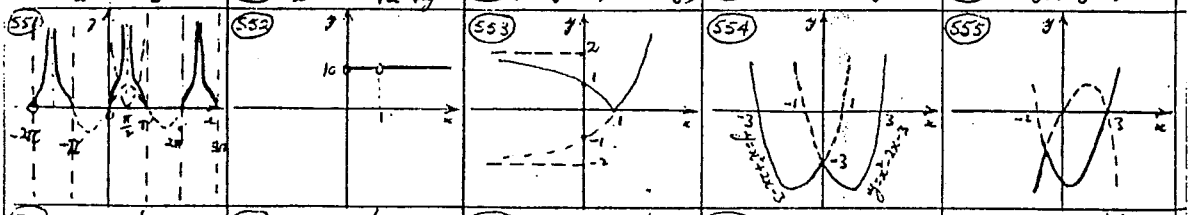
536 $y=\frac{x-1}{x(x+1)}$ | 537 $y=\frac{x(x-2)}{x+3}$ | 538 $r=1-2\sin\theta$ | 539 $y=\sqrt{x^2(1-x^2)}$ | 540 $r=1-\sin\theta$



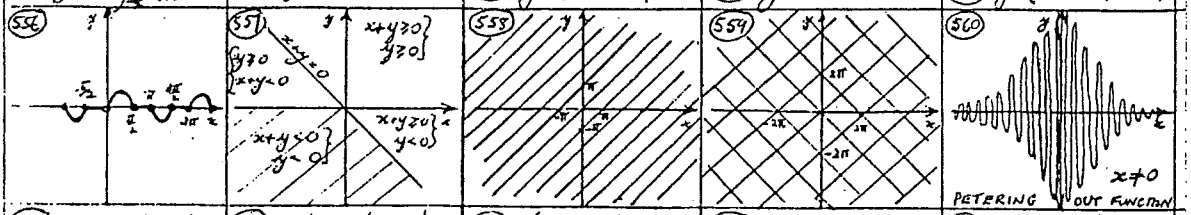
541 $y=\frac{x^3}{1+x^2}$ | 542 $y^2=\frac{x^4}{4-x^2}$ | 543 $(x^2+y^2-4r^2)^3=108x^2r^4$ | 544 $x=a\cos(t+\varepsilon)$, $y=b\cos\omega t$ | 545 $\frac{(x-h)^2}{a^2}+\frac{(y-k)^2}{b^2}=1$



546 $\frac{(x-h)^2}{a^2}-\frac{(y-k)^2}{b^2}=1$ | 547 $\frac{dy}{dx}=\tan\frac{\pi}{\sqrt{x^2+y^2}}$ | 548 $(x^2+y^2+x)^2=4(x^2+y^2)$ | 549 $(x-a)^2=4k(y-b)$ | 550 $(x+y)(xy+1)=0$



551 $y=\frac{1}{\log_{\frac{1}{4}}\sin x}$ | 552 $y=x^{\frac{1}{\log_{10}x}}$ | 553 $y=|2-2^x|$ | 554 $y=x^2-2|x|-3$ | 555 $y=(|x+1|+1)(x-3)$



556 $y=\sin x|\sin x|+\cos x|\cos x|$ | 557 $|y|=x+|x+y|$ | 558 $\tan y=\tan x$ | 559 $\cos y=\cos x$ | 560 $y=\frac{1}{x}\sin\frac{1}{x}$

$y=x+n\pi$ See also 365

$y=x+2k\pi$, $y=2k\pi-x$ See also 385

(P)

FURTHER MISCELLANEOUS SKETCHES.

[INVERSE FUNCTIONS, POLAR GRAPHS, LISSAJOUS ELLIPSES, GENERAL CONICS LOGARITHMIC, ABSOLUTE VALUE & TRIG. GRAPH SKETCHES.]