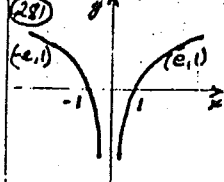
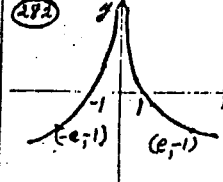
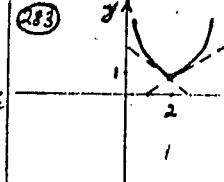
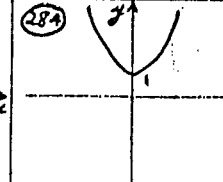
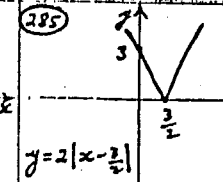
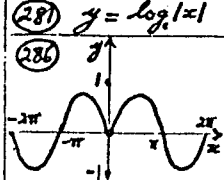
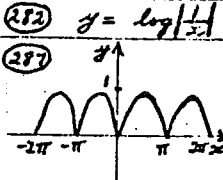
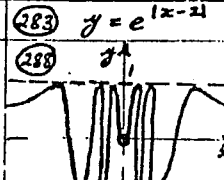
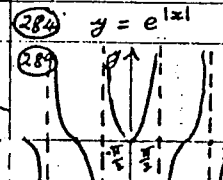
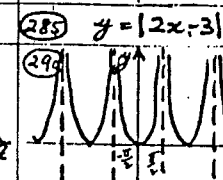
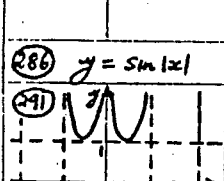
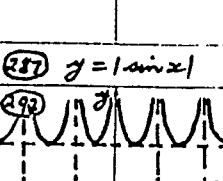
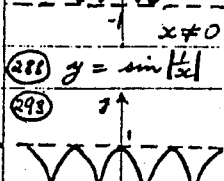
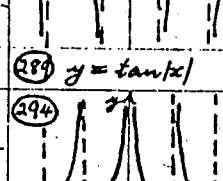
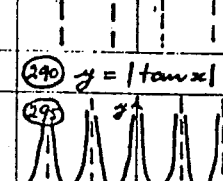
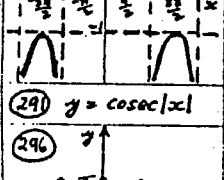
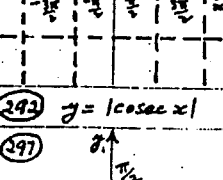
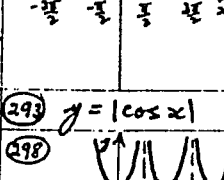
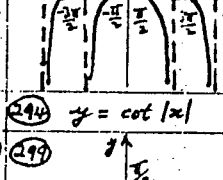
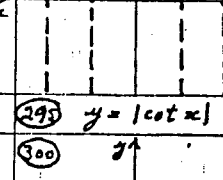
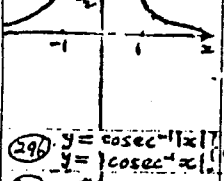
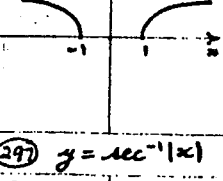
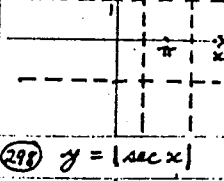
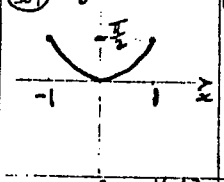
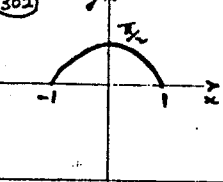
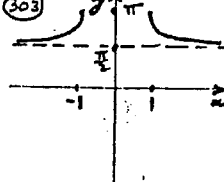
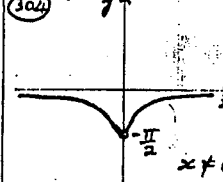
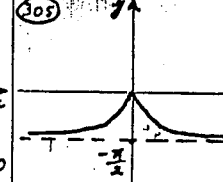
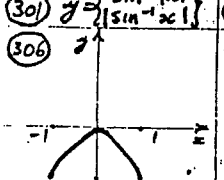
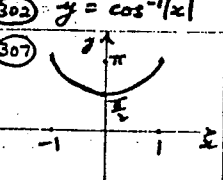
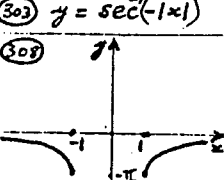
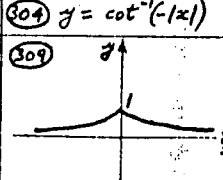
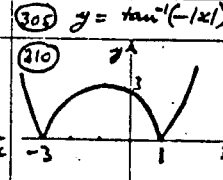


WHAT SKETCH IS THAT?

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

281 	282 	283 	284 	285 
287 $y = \log x $	282 $y = \log 1/x $	283 $y = e^{ x-2 }$	284 $y = e^{ x }$	285 $y = 2x-3 $
286 	287 	288 	289 	290 
286 $y = \sin x $	287 $y = \sin x $	288 $y = \sin x $	289 $y = \tan x $	290 $y = \tan x $
291 	292 	293 	294 	295 
291 $y = \operatorname{cosec} x $	292 $y = \operatorname{cosec} x $	293 $y = \cos x $	294 $y = \cot x $	295 $y = \cot x $
296 	297 	298 	299 	300 
296 $y = \operatorname{cosec}^{-1} x $	297 $y = \operatorname{cosec}^{-1} x $	298 $y = \sec x $	299 $y = \cot^{-1} x $	300 $y = \tan^{-1} x $
301 	302 	303 	304 $y = \cot^{-1} x $	305 $y = \tan^{-1} x $
301 $y = \operatorname{cosec}^{-1} x $	302 $y = \sec^{-1} x $	303 $y = \sec x $	304 $y = \cot^{-1} x $	305 $y = \tan^{-1} x $
306 $y = \begin{cases} \sin^{-1} x \\ \sin^{-1} x \end{cases}$	302 $y = \cos^{-1} x $	303 $y = \sec^{-1}(- x)$	304 $y = \cot^{-1}(- x)$	305 $y = \tan^{-1}(- x)$
306 	307 	308 	309 	310 
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 	312 	313 	314 	315 
311 $y = x + x-1 $	312 $y = \tan^{-1} x-c $	313 $y = e^{ x }$	314 $y = e^{- x }$	315 $y = x^2 - x $

① SKETCHES INVOLVING ABSOLUTE VALUES.

WHAT SKETCH IS THAT?

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

(351)	(352)	(353)	(354)	(355)
(356)	(357)	(358)	(359)	(360)
(361)	(362)	(363)	(364)	(365)
(366)	(367)	(368)	(369)	(370)
(371)	(372)	(373)	(374)	(375)
(376)	(377)	(378)	(379)	(380)
(381)	(382)	(383)	(384)	(385)

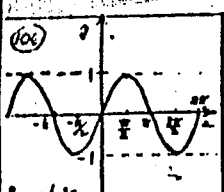
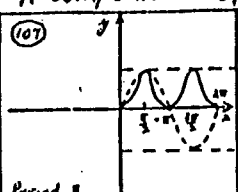
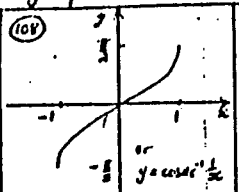
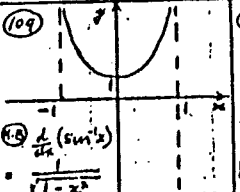
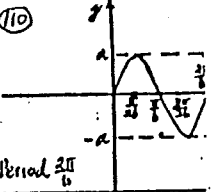
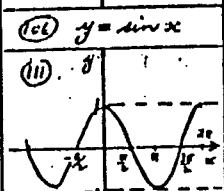
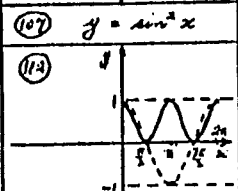
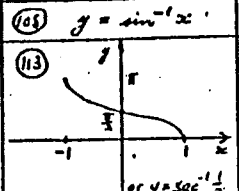
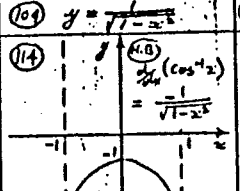
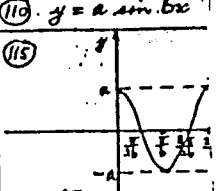
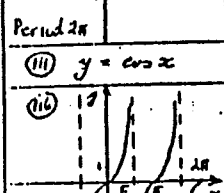
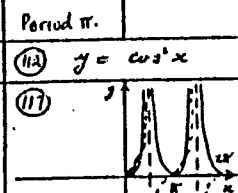
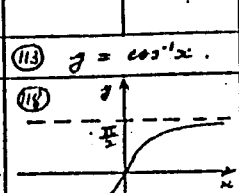
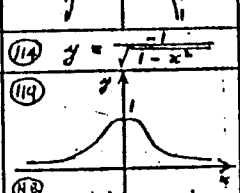
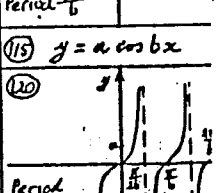
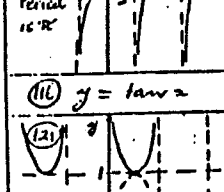
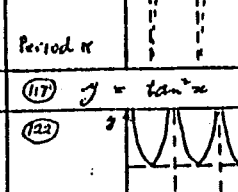
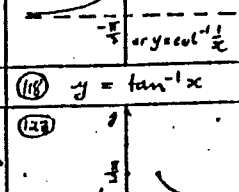
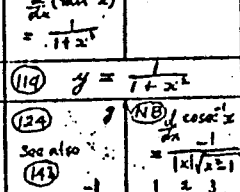
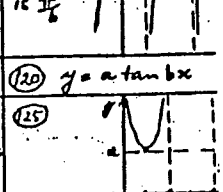
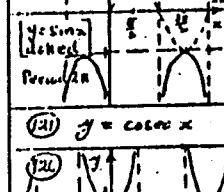
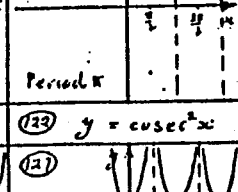
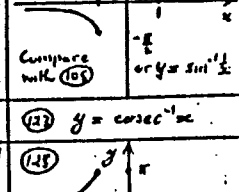
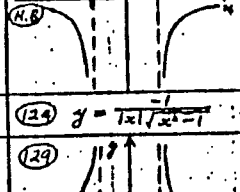
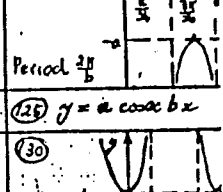
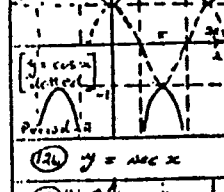
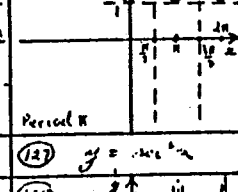
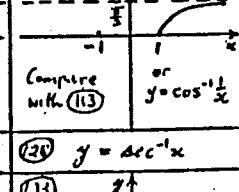
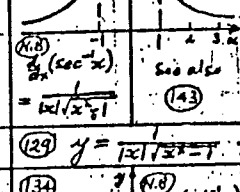
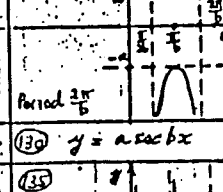
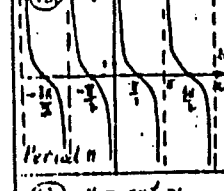
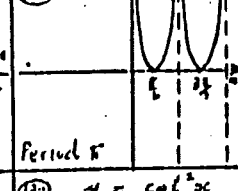
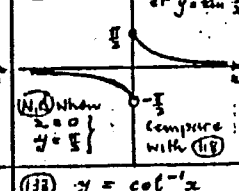
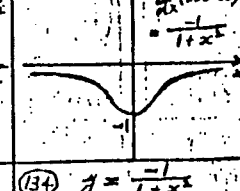
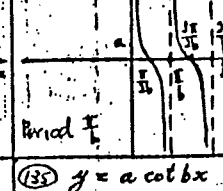
Ⓚ FURTHER MISCELLANEOUS GRAPHS OF RATIONAL & IRRATIONAL RELATIONS, PLUS OTHER TRIG, LOG, EXPONENTIAL & ABSOLUTE VALUE SKETCHES

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

$y = x + 2n\pi$
 $y = -x + (2n-1)\pi$
 where $n \in \mathbb{Z}$ (integers)
 See also (556) & (559)

WHAT SKETCH IS THAT?

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

<p>(106)  Period 2π</p>	<p>(107)  Period π</p>	<p>(108)  or $y = \cos^{-1} \frac{1}{x}$</p>	<p>(109)  $\frac{1}{\sqrt{1-x^2}}$ (NB) $\frac{1}{\sqrt{1-x^2}} = \frac{1}{\sqrt{1-x^2}}$</p>	<p>(110)  Period $\frac{2\pi}{b}$</p>
<p>(111)  Period 2π</p>	<p>(112)  Period π</p>	<p>(113)  or $y = \sec^{-1} \frac{1}{x}$</p>	<p>(114)  (NB) $\frac{1}{\sqrt{1-x^2}} = \frac{1}{\sqrt{1-x^2}}$</p>	<p>(115)  Period $\frac{2\pi}{b}$</p>
<p>(116)  Period π</p>	<p>(117)  Period π</p>	<p>(118)  or $y = \cot^{-1} \frac{1}{x}$</p>	<p>(119)  (NB) $\frac{1}{1+x^2} = \frac{1}{1+x^2}$</p>	<p>(120)  Period $\frac{\pi}{b}$</p>
<p>(121)  Period 2π</p>	<p>(122)  Period π</p>	<p>(123)  or $y = \sin^{-1} \frac{1}{x}$</p>	<p>(124)  (NB) $\frac{1}{ x \sqrt{x^2-1}}$ See also (143)</p>	<p>(125)  Period $\frac{2\pi}{b}$</p>
<p>(126)  Period 2π</p>	<p>(127)  Period π</p>	<p>(128)  or $y = \cos^{-1} \frac{1}{x}$ Compare with (113)</p>	<p>(129)  (NB) $\frac{1}{ x \sqrt{x^2-1}}$ See also (143)</p>	<p>(130)  Period $\frac{2\pi}{b}$</p>
<p>(131)  Period π</p>	<p>(132)  Period π</p>	<p>(133)  or $y = \tan^{-1} \frac{1}{x}$ (NB) show $\lim_{x \rightarrow 0} y = \frac{\pi}{2}$ Compare with (118)</p>	<p>(134)  (NB) $\frac{1}{1+x^2} = \frac{1}{1+x^2}$</p>	<p>(135)  Period $\frac{\pi}{b}$</p>
<p>(136)  $y = \sin x$ $y = \cos x$ are both dotted.</p>	<p>(137)  $y = x$ $y = \sin x$ are both dotted.</p>	<p>(138)  $y = 1 + \cos^2 x$</p>	<p>(139)  $\frac{\pi}{4}$ phase shift to R.H.S. Amplitude 4 Period π</p>	<p>(140)  $\frac{\pi}{2}$ phase shift to R.H.S. Amplitude 4 Period π</p>
<p>(139) $y = \frac{1}{1+\cos^2 x}$</p>	<p>(140) $y = 1 + \sin(x + \frac{\pi}{4})$</p>	<p>(140) $y = 1 + \cos(2x - \frac{\pi}{2})$</p>		

Ⓢ TRIG, INVERSE TRIG AND RELATED SKETCHES

WHAT SKETCH IS THAT?

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

(526)	(527)	(528)	(529)	(530)
(526) $y^2 = (x-1)(x+2)$	(527) $y^2 = (x-2)^2(x+1)$	(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)	(532)	(533)	(534)	(535)
(531) $y = \frac{x+2}{(x-1)^2}$	(532) $y = \sqrt{x^2-1}$	(533) $y = \frac{x}{\sqrt{x^2-1}}$	(534) $y = \frac{2}{\sqrt{x+1}}$	(535) $y^2 = x(x^2-1)$
(536)	(537)	(538)	(539)	(540)
(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)	(542)	(543)	(544)	(545)
(541) $y = \frac{x^2}{1+x^2}$	(542) $y^2 = \frac{x^4}{4-x^2}$	(543) $(x^2+y^2-4)^2 = 16x^2y^2$	(544) $x = a\cos(t+\epsilon), y = b\sin t$	(545) $\frac{(x-h)^2}{a^2} + \frac{(y-k)^2}{b^2} = 1$
(546)	(547)	(548)	(549)	(550)
(546) $\frac{(x-h)^2}{a^2} - \frac{(y-k)^2}{b^2} = 1$	(547) $\frac{1}{r^2} = \tan \frac{\pi}{\sqrt{a^2+y^2}}$	(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)	(552)	(553)	(554)	(555)
(551) $y = \log_2 \sin x$	(552) $y = x - \log_2 x$	(553) $y = 2 - 2^x $	(554) $y = x^2 - 2 x - 3$	(555) $y = (x+1)(x-3)$
(556)	(557)	(558)	(559)	(560)
(556) $y = \sin x \ln x+1 + \cos x$	(557) $ y = x + x+y $	(558) $\tan y = \tan x$	(559) $\cos y = \omega x$	(560) $y = \frac{1}{x} \sin \frac{1}{x}$

$y = x + n\pi$
See also (285)
 $y = x + 2k\pi$
 $y = 2k\pi - x$
See also (285)

(P)

FURTHER MISCELLANEOUS SKETCHES.

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