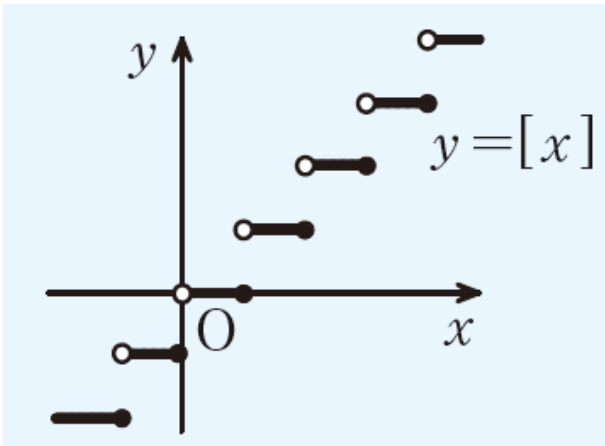
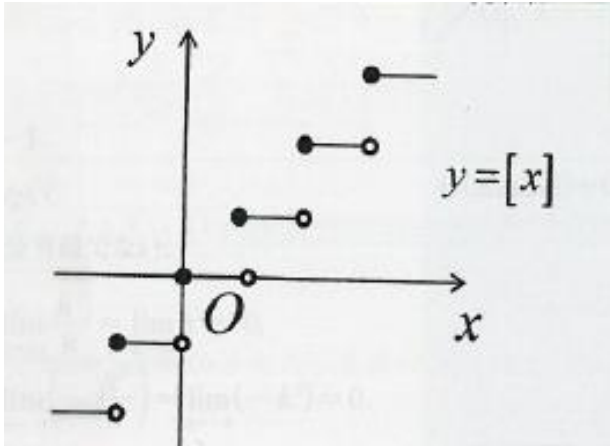


『松田の数学Ⅲ 典型問題 Type60』(初版) 正誤表

該当ページ	【誤】	【正】
本冊		
P.31 Solution 上から 2 行目	2 実解を a, b とすると,	2 実解を α, β とすると,
P.39 Solution 上から 5 行目	$\therefore x \leq -1, 1 \leq x \leq 2.$	$\therefore x \leq -1, 1 < x \leq 2.$
P.55 Approach 上から 2 番目の図		

P.69 Point 下から3行目	$b = \dots = \lim_{x \rightarrow \infty} \frac{-1}{\sqrt{t^2 - 1} + t} = 0$	$b = \dots = \lim_{t \rightarrow \infty} \frac{-1}{\sqrt{t^2 - 1} + t} = 0$																																																																								
P.72 Point 増減表	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr><td style="padding: 5px;">x</td><td style="padding: 5px;">...</td><td style="padding: 5px;">0</td><td style="padding: 5px;">...</td><td style="padding: 5px;">2</td><td style="padding: 5px;">...</td><td style="padding: 5px;">3</td><td style="padding: 5px;">...</td></tr> <tr><td style="padding: 5px;">$f'(x)$</td><td style="padding: 5px;">-</td><td style="padding: 5px;">/</td><td style="padding: 5px;">+</td><td style="padding: 5px;">0</td><td style="padding: 5px;">-</td><td style="padding: 5px;">-</td><td style="padding: 5px;">-</td></tr> <tr><td style="padding: 5px;">$f''(x)$</td><td style="padding: 5px;">-</td><td style="padding: 5px;">/</td><td style="padding: 5px;">-</td><td style="padding: 5px;">-</td><td style="padding: 5px;">-</td><td style="padding: 5px;">0</td><td style="padding: 5px;">+</td></tr> <tr><td style="padding: 5px;">y</td><td style="padding: 5px;">↘</td><td style="padding: 5px;">/</td><td style="padding: 5px;">↗</td><td style="padding: 5px;">極大 $\frac{1}{4}$</td><td style="padding: 5px;">↘</td><td style="padding: 5px;">変曲点 $\frac{2}{9}$</td><td style="padding: 5px;">↘</td></tr> </table>	x	...	0	...	2	...	3	...	$f'(x)$	-	/	+	0	-	-	-	$f''(x)$	-	/	-	-	-	0	+	y	↘	/	↗	極大 $\frac{1}{4}$	↘	変曲点 $\frac{2}{9}$	↘	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr><td style="padding: 5px;">x</td><td style="padding: 5px;">...</td><td style="padding: 5px;">0</td><td style="padding: 5px;">...</td><td style="padding: 5px;">2</td><td style="padding: 5px;">...</td><td style="padding: 5px;">3</td><td style="padding: 5px;">...</td></tr> <tr><td style="padding: 5px;">$f'(x)$</td><td style="padding: 5px;">-</td><td style="padding: 5px;">/</td><td style="padding: 5px;">+</td><td style="padding: 5px;">0</td><td style="padding: 5px;">-</td><td style="padding: 5px;">-</td><td style="padding: 5px;">-</td></tr> <tr><td style="padding: 5px;">$f''(x)$</td><td style="padding: 5px;">-</td><td style="padding: 5px;">/</td><td style="padding: 5px;">-</td><td style="padding: 5px;">-</td><td style="padding: 5px;">-</td><td style="padding: 5px;">0</td><td style="padding: 5px;">+</td></tr> <tr><td style="padding: 5px;">$f(x)$</td><td style="padding: 5px;">↘</td><td style="padding: 5px;">/</td><td style="padding: 5px;">↗</td><td style="padding: 5px;">極大 $\frac{1}{4}$</td><td style="padding: 5px;">↘</td><td style="padding: 5px;">変曲点 $\frac{2}{9}$</td><td style="padding: 5px;">↘</td></tr> </table>	x	...	0	...	2	...	3	...	$f'(x)$	-	/	+	0	-	-	-	$f''(x)$	-	/	-	-	-	0	+	$f(x)$	↘	/	↗	極大 $\frac{1}{4}$	↘	変曲点 $\frac{2}{9}$	↘								
x	...	0	...	2	...	3	...																																																																			
$f'(x)$	-	/	+	0	-	-	-																																																																			
$f''(x)$	-	/	-	-	-	0	+																																																																			
y	↘	/	↗	極大 $\frac{1}{4}$	↘	変曲点 $\frac{2}{9}$	↘																																																																			
x	...	0	...	2	...	3	...																																																																			
$f'(x)$	-	/	+	0	-	-	-																																																																			
$f''(x)$	-	/	-	-	-	0	+																																																																			
$f(x)$	↘	/	↗	極大 $\frac{1}{4}$	↘	変曲点 $\frac{2}{9}$	↘																																																																			
P.75 Solution 問 I 増減表	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr><td style="padding: 5px;">θ</td><td style="padding: 5px;">0</td><td style="padding: 5px;">...</td><td style="padding: 5px;">π</td><td style="padding: 5px;">...</td><td style="padding: 5px;">2π</td></tr> <tr><td style="padding: 5px;">$\frac{dx}{d\theta}$</td><td style="padding: 5px;">0</td><td style="padding: 5px;">+</td><td style="padding: 5px;">0</td><td style="padding: 5px;">+</td><td style="padding: 5px;">0</td></tr> <tr><td style="padding: 5px;">$\frac{dy}{d\theta}$</td><td style="padding: 5px;">0</td><td style="padding: 5px;">+</td><td style="padding: 5px;">0</td><td style="padding: 5px;">-</td><td style="padding: 5px;">0</td></tr> <tr><td style="padding: 5px;">$\frac{dy}{dx}$</td><td style="padding: 5px;">/</td><td style="padding: 5px;">+</td><td style="padding: 5px;">0</td><td style="padding: 5px;">-</td><td style="padding: 5px;">/</td></tr> <tr><td style="padding: 5px;">$\frac{d^2y}{dx^2}$</td><td style="padding: 5px;">/</td><td style="padding: 5px;">-</td><td style="padding: 5px;">-</td><td style="padding: 5px;">-</td><td style="padding: 5px;">/</td></tr> <tr><td style="padding: 5px;">(x, y)</td><td style="padding: 5px;">(0, 0)</td><td style="padding: 5px;">↗</td><td style="padding: 5px;">($\pi, 2$)</td><td style="padding: 5px;">↘</td><td style="padding: 5px;">($2\pi, 0$)</td></tr> </table>	θ	0	...	π	...	2π	$\frac{dx}{d\theta}$	0	+	0	+	0	$\frac{dy}{d\theta}$	0	+	0	-	0	$\frac{dy}{dx}$	/	+	0	-	/	$\frac{d^2y}{dx^2}$	/	-	-	-	/	(x, y)	(0, 0)	↗	($\pi, 2$)	↘	($2\pi, 0$)	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr><td style="padding: 5px;">θ</td><td style="padding: 5px;">0</td><td style="padding: 5px;">...</td><td style="padding: 5px;">π</td><td style="padding: 5px;">...</td><td style="padding: 5px;">2π</td></tr> <tr><td style="padding: 5px;">$\frac{dx}{d\theta}$</td><td style="padding: 5px;">0</td><td style="padding: 5px;">+</td><td style="padding: 5px;">2</td><td style="padding: 5px;">+</td><td style="padding: 5px;">0</td></tr> <tr><td style="padding: 5px;">$\frac{dy}{d\theta}$</td><td style="padding: 5px;">0</td><td style="padding: 5px;">+</td><td style="padding: 5px;">0</td><td style="padding: 5px;">-</td><td style="padding: 5px;">0</td></tr> <tr><td style="padding: 5px;">$\frac{dy}{dx}$</td><td style="padding: 5px;">/</td><td style="padding: 5px;">+</td><td style="padding: 5px;">0</td><td style="padding: 5px;">-</td><td style="padding: 5px;">/</td></tr> <tr><td style="padding: 5px;">$\frac{d^2y}{dx^2}$</td><td style="padding: 5px;">/</td><td style="padding: 5px;">-</td><td style="padding: 5px;">-</td><td style="padding: 5px;">-</td><td style="padding: 5px;">/</td></tr> <tr><td style="padding: 5px;">(x, y)</td><td style="padding: 5px;">(0, 0)</td><td style="padding: 5px;">↗</td><td style="padding: 5px;">($\pi, 2$)</td><td style="padding: 5px;">↘</td><td style="padding: 5px;">($2\pi, 0$)</td></tr> </table>	θ	0	...	π	...	2π	$\frac{dx}{d\theta}$	0	+	2	+	0	$\frac{dy}{d\theta}$	0	+	0	-	0	$\frac{dy}{dx}$	/	+	0	-	/	$\frac{d^2y}{dx^2}$	/	-	-	-	/	(x, y)	(0, 0)	↗	($\pi, 2$)	↘	($2\pi, 0$)
θ	0	...	π	...	2π																																																																					
$\frac{dx}{d\theta}$	0	+	0	+	0																																																																					
$\frac{dy}{d\theta}$	0	+	0	-	0																																																																					
$\frac{dy}{dx}$	/	+	0	-	/																																																																					
$\frac{d^2y}{dx^2}$	/	-	-	-	/																																																																					
(x, y)	(0, 0)	↗	($\pi, 2$)	↘	($2\pi, 0$)																																																																					
θ	0	...	π	...	2π																																																																					
$\frac{dx}{d\theta}$	0	+	2	+	0																																																																					
$\frac{dy}{d\theta}$	0	+	0	-	0																																																																					
$\frac{dy}{dx}$	/	+	0	-	/																																																																					
$\frac{d^2y}{dx^2}$	/	-	-	-	/																																																																					
(x, y)	(0, 0)	↗	($\pi, 2$)	↘	($2\pi, 0$)																																																																					

<p>P.75 Solution</p> <p>問II 増減表</p>	<table border="1"> <tr><td>x</td><td>-2</td><td>...</td><td>$-\sqrt{2}$</td><td>...</td><td>0</td><td>...</td><td>$\sqrt{2}$</td><td>...</td><td>2</td></tr> <tr><td>$f'(x)$</td><td>/</td><td>-</td><td>0</td><td>+</td><td>0</td><td>+</td><td>0</td><td>-</td><td>/</td></tr> <tr><td>$f''(x)$</td><td>/</td><td>+</td><td>+</td><td>+</td><td>0</td><td>-</td><td>-</td><td>-</td><td>/</td></tr> <tr><td>(x,y)</td><td>$(-2,0)$</td><td>↘</td><td>$(-\sqrt{2},-2)$</td><td>↗</td><td>$(0,0)$</td><td>↖</td><td>$(\sqrt{2},2)$</td><td>↘</td><td>$(2,0)$</td></tr> </table>	x	-2	...	$-\sqrt{2}$...	0	...	$\sqrt{2}$...	2	$f'(x)$	/	-	0	+	0	+	0	-	/	$f''(x)$	/	+	+	+	0	-	-	-	/	(x,y)	$(-2,0)$	↘	$(-\sqrt{2},-2)$	↗	$(0,0)$	↖	$(\sqrt{2},2)$	↘	$(2,0)$	<table border="1"> <tr><td>x</td><td>-2</td><td>...</td><td>$-\sqrt{2}$</td><td>...</td><td>0</td><td>...</td><td>$\sqrt{2}$</td><td>...</td><td>2</td></tr> <tr><td>$f'(x)$</td><td>/</td><td>-</td><td>0</td><td>+</td><td>2</td><td>+</td><td>0</td><td>-</td><td>/</td></tr> <tr><td>$f''(x)$</td><td>/</td><td>+</td><td>+</td><td>+</td><td>0</td><td>-</td><td>-</td><td>-</td><td>/</td></tr> <tr><td>(x,y)</td><td>$(-2,0)$</td><td>↘</td><td>$(-\sqrt{2},-2)$</td><td>↗</td><td>$(0,0)$</td><td>↖</td><td>$(\sqrt{2},2)$</td><td>↘</td><td>$(2,0)$</td></tr> </table>	x	-2	...	$-\sqrt{2}$...	0	...	$\sqrt{2}$...	2	$f'(x)$	/	-	0	+	2	+	0	-	/	$f''(x)$	/	+	+	+	0	-	-	-	/	(x,y)	$(-2,0)$	↘	$(-\sqrt{2},-2)$	↗	$(0,0)$	↖	$(\sqrt{2},2)$	↘	$(2,0)$
x	-2	...	$-\sqrt{2}$...	0	...	$\sqrt{2}$...	2																																																																									
$f'(x)$	/	-	0	+	0	+	0	-	/																																																																									
$f''(x)$	/	+	+	+	0	-	-	-	/																																																																									
(x,y)	$(-2,0)$	↘	$(-\sqrt{2},-2)$	↗	$(0,0)$	↖	$(\sqrt{2},2)$	↘	$(2,0)$																																																																									
x	-2	...	$-\sqrt{2}$...	0	...	$\sqrt{2}$...	2																																																																									
$f'(x)$	/	-	0	+	2	+	0	-	/																																																																									
$f''(x)$	/	+	+	+	0	-	-	-	/																																																																									
(x,y)	$(-2,0)$	↘	$(-\sqrt{2},-2)$	↗	$(0,0)$	↖	$(\sqrt{2},2)$	↘	$(2,0)$																																																																									
<p>P.81 Solution</p> <p>tの増減表</p>	<table border="1"> <tr><td>x</td><td>0</td><td>...</td><td>$\frac{1}{3}$</td><td>...</td><td>1</td></tr> <tr><td>$g'(t)$</td><td></td><td>-</td><td>0</td><td>+</td><td></td></tr> <tr><td>$g(t)$</td><td></td><td>↘</td><td>極小</td><td>↗</td><td></td></tr> </table>	x	0	...	$\frac{1}{3}$...	1	$g'(t)$		-	0	+		$g(t)$		↘	極小	↗		<table border="1"> <tr><td>t</td><td>0</td><td>...</td><td>$\frac{1}{3}$</td><td>...</td><td>1</td></tr> <tr><td>$g'(t)$</td><td>/</td><td>-</td><td>0</td><td>+</td><td>/</td></tr> <tr><td>$g(t)$</td><td></td><td>↘</td><td>極小</td><td>↗</td><td></td></tr> </table>	t	0	...	$\frac{1}{3}$...	1	$g'(t)$	/	-	0	+	/	$g(t)$		↘	極小	↗																																													
x	0	...	$\frac{1}{3}$...	1																																																																													
$g'(t)$		-	0	+																																																																														
$g(t)$		↘	極小	↗																																																																														
t	0	...	$\frac{1}{3}$...	1																																																																													
$g'(t)$	/	-	0	+	/																																																																													
$g(t)$		↘	極小	↗																																																																														
<p>P.99 Practice40</p> <p>下から2行目</p>	<p>(3) $\int \frac{e^x+1}{e^x-e^{-x}}$</p>	<p>(3) $\int \frac{e^x+1}{e^x-e^{-x}} dx$</p>																																																																																
<p>P.103 Practice42</p> <p>最終行</p>	<p>(4) $\int_0^1 \frac{dx}{(2+x^2)^2}$</p>	<p>(4) $\int_0^{\sqrt{2}} \frac{dx}{(2+x^2)^2}$</p>																																																																																

<p>P.135 Solution</p> <p>上から 12~14 行目</p>	<p>また, $a_1 - \frac{3}{2} = 2 - \frac{3}{2} = \frac{1}{2}$ より</p> $\textcircled{1} \Leftrightarrow a_n - \frac{3}{2} = \frac{1}{2} \cdot \left(\frac{1}{3}\right)^{n-1} \Leftrightarrow a_n = \frac{1}{2} \left(\frac{1}{3}\right)^{n-1} + \frac{3}{2}.$ $\therefore \lim_{n \rightarrow \infty} a_n = \lim_{n \rightarrow \infty} \left\{ \frac{1}{2} \cdot \left(\frac{1}{3}\right)^{n-1} + \frac{3}{2} \right\} = \frac{3}{2}.$	<p>また, $a_1 - \frac{3}{2} = 1 - \frac{3}{2} = -\frac{1}{2}$ より</p> $\textcircled{1} \Leftrightarrow a_n - \frac{3}{2} = -\frac{1}{2} \cdot \left(\frac{1}{3}\right)^{n-1} \Leftrightarrow a_n = -\frac{1}{2} \left(\frac{1}{3}\right)^{n-1} + \frac{3}{2}.$ $\therefore \lim_{n \rightarrow \infty} a_n = \lim_{n \rightarrow \infty} \left\{ -\frac{1}{2} \cdot \left(\frac{1}{3}\right)^{n-1} + \frac{3}{2} \right\} = \frac{3}{2}.$
別冊		
<p>P.9 Solution</p> <p>最終行</p>	<p>\therefore 領域 E は右図の斜線部 (境界含む).</p>	<p>\therefore 領域 E は右図の斜線部 (点 $(a, b) = (\pm \frac{3}{2}, 0)$ を除く境界を含む).</p>

<p>P.31 Solution</p> <p>最終行</p>	<p>$x = \frac{2}{3}\pi$ のとき, 最大値 $f\left(\frac{2}{3}\pi\right) = \frac{a}{\sqrt{3}} = \sqrt{3}$. $\therefore a = 3$.</p>	<p>(i) $a > 0$ の場合</p> <p>$x = \frac{2}{3}\pi$ のとき,</p> <p>最大値 $f\left(\frac{2}{3}\pi\right) = \frac{a}{\sqrt{3}} = \sqrt{3}$ $\therefore a = 3$.</p> <p>(ii) $a < 0$ の場合</p> <p>$x = 0, \pi$ のとき,</p> <p>最大値 $f(0) = f(\pi) = 0 \neq \sqrt{3}$.</p> <p>よって, 不適.</p> <p>以上の(i)(ii)より, $a = 3$.</p>
<p>P.43 Practice42</p> <p>上から 3 行目</p>	<p>(4) $\int_0^1 \frac{dx}{(2+x^2)^2}$</p>	<p>(4) $\int_0^{\sqrt{2}} \frac{dx}{(2+x^2)^2}$</p>
<p>P.43 Solution</p> <p>下から 4 行目</p>	$\int_0^1 \frac{1}{(2+x^2)^2} dx = \int_0^{\frac{\pi}{4}} \frac{\cos^4 \theta}{4} \cdot \frac{\sqrt{2}}{\cos^2 \theta} d\theta$ $= \frac{1}{2\sqrt{2}} \int_0^{\frac{\pi}{4}} \cos^2 \theta d\theta$	$\int_0^{\sqrt{2}} \frac{1}{(2+x^2)^2} dx = \int_0^{\frac{\pi}{4}} \frac{\cos^4 \theta}{4} \cdot \frac{\sqrt{2}}{\cos^2 \theta} d\theta$ $= \frac{1}{2\sqrt{2}} \int_0^{\frac{\pi}{4}} \cos^2 \theta d\theta$

P.43 Solution (4)増減表	<table style="border-collapse: collapse; margin: auto;"> <tr style="border-top: 1px solid black; border-bottom: 1px solid black;"><td style="border-right: 1px solid black; padding: 5px;">x</td><td style="padding: 5px;">$0 \rightarrow 1$</td></tr> <tr style="border-bottom: 1px solid black;"><td style="border-right: 1px solid black; padding: 5px;">θ</td><td style="padding: 5px;">$0 \rightarrow \frac{\pi}{4}$</td></tr> </table>	x	$0 \rightarrow 1$	θ	$0 \rightarrow \frac{\pi}{4}$	<table style="border-collapse: collapse; margin: auto;"> <tr style="border-top: 1px solid black; border-bottom: 1px solid black;"><td style="border-right: 1px solid black; padding: 5px;">x</td><td style="padding: 5px;">$0 \rightarrow \sqrt{2}$</td></tr> <tr style="border-bottom: 1px solid black;"><td style="border-right: 1px solid black; padding: 5px;">θ</td><td style="padding: 5px;">$0 \rightarrow \frac{\pi}{4}$</td></tr> </table>	x	$0 \rightarrow \sqrt{2}$	θ	$0 \rightarrow \frac{\pi}{4}$
	x	$0 \rightarrow 1$								
θ	$0 \rightarrow \frac{\pi}{4}$									
x	$0 \rightarrow \sqrt{2}$									
θ	$0 \rightarrow \frac{\pi}{4}$									

『松田の数学Ⅲ 典型問題 Type60』（初版・第2版）正誤表

該当ページ	【誤】	【正】
本冊		
P.96 Point 下から2行目	$\cdot \int \frac{1}{\sin x^2} dx = -\frac{1}{\tan x} + C$	$\cdot \int \frac{1}{\sin^2 x} dx = -\frac{1}{\tan x} + C$
別冊		
P.34 Solution 下から6行目	$= \frac{-4 \cos x (\sin x + 2)(\sin x - 1)}{(\sin^2 x + 2)}$	$= \frac{-4 \cos x (\sin x + 2)(\sin x - 1)}{(\sin^2 x + 2)^2}$