

Notation	Definition
$\phi_1, \phi_2$	Hydraulic head for region 1 and 2 [L]
$Q_{1k}, Q_{2k}$	Unit thickness pumping rate for region 1 and 2 [L <sup>2</sup> T <sup>-1</sup> ]
$S_{s1}, S_{s2}$	Specific storage for region 1 and 2 [L <sup>-1</sup> ]
$K_x, K_y$	Hydraulic conductivities in the $x$ and $y$ direction [LT <sup>-1</sup> ]
$t$	Time [T]
$p$	Laplace variable
$h_1, h_2, h_3$	Hydraulic heads at boundaries AG, DE, and point B, respectively [L]
$l_1, l_2$	Length of boundary FG and AB [L]
$d_1, d_2$	Length of boundary BC and CD [L]
$\kappa_1, \kappa_2$	Anisotropic ratio of hydraulic conductivity in region 1 and 2
$\Delta_1$	$\begin{cases} 1, & m = 0 \\ 2, & m \neq 0 \end{cases}, m = 1, 2, 3, \dots$
$\Delta_2$	$\frac{2}{1-l_2^*}$
$\lambda_v$	$\frac{v\pi}{l_1^*}, v = m, i = 1, 2, 3, \dots$
$\alpha_w$	$\frac{(w-1/2)\pi}{1-l_2^*}, w = n, j = 1, 2, 3, \dots$
$\Omega_{1v}$	$\lambda_v \sqrt{\kappa_1} d_2 / l_1, v = m, i = 1, 2, 3, \dots$
$\Omega_{2w}$	$\alpha_w \sqrt{\kappa_2} d_2 / l_1, w = n, j = 1, 2, 3, \dots$
$h_{21}^*$	$(h_2 - h_1) / h_1$
$h_{23}^*$	$(h_2 - h_3) / h_1$
$h_{31}^*$	$(h_3 - h_1) / h_1$
$H_{21}^*$	$(h_2 - h_1) / h_2$
$H_{23}^*$	$(h_2 - h_3) / h_2$
$H_{31}^*$	$(h_3 - h_1) / h_2$
$\delta_1$	2
$\delta_2$	$\frac{2}{1-l_2^*}$
$\theta_1$	$\sqrt{\kappa_1 \left( d_2^2 / l_1^2 \right)}$
$\theta_2$	$\sqrt{\kappa_2 \left( d_2^2 / l_1^2 \right)}$
$\mu_i$	$\sqrt{\theta_1^2 \lambda_i^2 + p}, i = 1, 2, 3, \dots$
$\theta_j$	$\sqrt{\theta_2^2 \alpha_j^2 + p s_{s2} k_{y1} / s_{s1} k_{y2}}, j = 1, 2, 3, \dots$