Table 1: **Vertex records.**

vertex	coordinates	incident edge
a	(0,2)	$\vec{ba}$
b	(2,0)	$\vec{db}$
$\vdots$	$\vdots$	$\vdots$
e	(4,6)	$\vec{fe}$
f	(6,4)	$\vec{df}$
$\vdots$	$\vdots$	$\vdots$

Table 2: **Face records.**

face	boundary edge	hole list
f_1	$\vec{ab}$	nil
f_2	$\vec{fe}$	nil
f_3	nil	nil

Table 3: **Half-edge records.**

half-edge	origin	face	twin	next	prev
$\vec{fe}$	f	f_2	$\vec{ef}$	$\vec{ec}$	$\vec{df}$
$\vec{ca}$	c	f_1	$\vec{ac}$	$\vec{ab}$	$\vec{dc}$
$\vec{db}$	d	f_3	$\vec{bd}$	$\vec{ba}$	$\vec{fd}$
$\vdots$	$\vdots$	$\vdots$	$\vdots$	$\vdots$	$\vdots$