Table 7.7 Strand Passage Metric on Unoriented DNA Knots: d_2.

	0_1	3_1	4_1	5_1	5_2	6_1	6_2	6_3	$3_1 \# 3_1$	$3_1 \# 3_1^*$	7_1	7_2	7_3	7_4
3_1	1	0	2	1	1	2	1	1	1	1	2	2	3	2-3
3_1^*	1	2	2	3	2	2	2	1	3	1	4	2	2	1
4_1	1	2	0	2-3	2	1	1	2	2-3	2-3	3-4	2	2-3	2-3
5_1	2	1	2-3	0	**1**	2-3	2	2	2	2	1	2	4	3-4
5_1^*	2	3	2-3	4	3	2-3	3	2	4	2	5	3	1	2
5_2	1	1	2	**1**	0	2	2	2	2	2	2	1	3	2-3
5_2^*	1	2	2	3	2	2	2	2	3	2	4	2	1	1
6_1	1	2	1	2-3	2	0	**1**	2	2-3	1-3	3-4	2	2-3	2-3
6_1^*	1	2	1	2-3	2	**1**	2	2	2-3	1-3	3-4	2	2-3	2-3
6_2	1	1	1	2	2	**1**	0	2	2	2	2-3	2	3	2-3
6_2^*	1	2	1	3	2	2	2	2	3	2	4	2	2-3	2
6_3	1	1	2	2	2	2	2	0	2	2	3	2	2-3	2
$3_1 \# 3_1$	2	1	2-3	2	2	2-3	2	2	0	2	2-3	2-3	4	3-4
$3_1^* \# 3_1^*$	2	3	2-3	4	3	2-3	3	2	4	2	5	3	2-3	2
$3_1 \# 3_1^*$	2	1	2-3	2	2	1-3	2	2	2	0	3	2-3	2-3	2
7_1	3	2	3-4	1	2	3-4	2-3	3	2-3	3	0	2	5	4-5
7_1^*	3	4	3-4	5	4	3-4	4	3	5	3	6	4	**1**	**2**
7_2	1	2	2	2	1	2	2	2	2-3	2-3	2	0	3	2-3
7_2^*	1	2	2	3	2	2	2	2	3	2-3	4	2	**1**	2
7_3	2	3	2-3	4	3	2-3	3	2-3	4	2-3	5	3	0	**1**
7_3^*	2	2	2-3	1	1	2-3	2-3	2-3	2-3	2-3	**1**	**1**	4	3-4
7_4	2	2-3	2-3	3-4	2-3	2-3	2-3	2	3-4	2	4-5	2-3	**1**	0
7_4^*	2	1	2-3	2	1	2-3	2	2	2	2	**2**	2	3-4	2-4
7_5	2	1	2-3	1	1	2-3	2	2	2	2	**1**	**1**	4	3-4
7_5^*	2	3	2-3	4	3	2-3	3	2	4	2	5	3	2	2
7_6	1	1	1	2	1	2	2	2	2	2	2-3	**1**	3	2-3
7_6^*	1	2	1	3	2	2	2	2	3	2	4	2	2	2
7_7	1	2	1	2-3	2	2	2	2	2-3	1-2	3-4	2	2-3	2
7_7^*	1	1	1	2	2	2	2	2	2	1-2	3	2	2-3	2-3
$3_1 \# 4_1$	2	1	1	1-2	1-2	2	2	2	2	2	2-3	2-3	3-4	2-4
$3_1^* \# 4_1$	2	2-3	1	3-4	2-3	2	2	2	3-4	2	4-5	2-3	1-3	1-2
8_1	1	2	2	2-3	2	1	2	2	2-3	2-3	3-4	2	2-3	2-3
8_1^*	1	2	2	2-3	2	2	2	2	2-3	2-3	3-4	2	2-3	2-3
8_2	2	1	2	1	2	2	1	2	2	2	2	2-3	4	3-4
8_2^*	2	3	2	4	3	2-3	3	2	4	2	5	3	2	2
8_3	2	2-3	2	2-4	2-3	1	2	2-3	2-4	2-4	3-5	2-3	2-4	2-4
8_4	2	2	1	2-3	2-3	2	1	2-3	2-3	2-3	2-4	2-3	3-4	2-4
8_4^*	2	2-3	1	3-4	2-3	1	2	2-3	3-4	2-3	4-5	2-3	2-4	2-3
8_5	2	3	2	4	3	2-3	3	2-3	4	2-3	5	3	1-4	2-3
8_5^*	2	1-2	2	2-3	1-3	**2**	1	2-3	1	2-3	1-4	1-3	4	3-4
8_6	2	1	2	2	2	1	1	2	2	2	2-3	2-3	3-4	2-4
8_6^*	2	2-3	2	3-4	2-3	2	2-3	2	3-4	2	4-5	2-3	2-3	2
8_7	1	2	2	3	2	2	2	1	3	2	4	2	2	2
8_7^*	1	1	2	1	2	2	2	1	2	2	2	2	3	2-3
8_8	2	1	2-3	2	2	2-3	2	1	2	2	3	2-3	2	2
8_8^*	2	1	2-3	2	1	2-3	2	1	2	2	3	2	2-3	2
8_9	1	2	2	2-3	2	2	1	2	2-3	2-3	3-4	2	2-3	2-3

Table 7.7 Strand Passage Metric on Unoriented DNA Knots: d_2 (cont.)

	0_1	3_1	4_1	5_1	5_2	6_1	6_2	6_3	$3_1 \# 3_1$	$3_1 \# 3_1^*$	7_1	7_2	7_3	7_4
8_{10}	1-2	2	2-3	3	2-3	1-3	2-3	1	3	1	4	2-3	2	1-2
8_{10}^*	1-2	1-2	2-3	1	1	1-3	1-3	1	1-3	1	2	1-2	3-4	2-3
8_{11}	1	2	2	**2**	1	1	1	2	1-3	1-3	2-3	2	3	2-3
8_{11}^*	1	2	2	3	2	2	2	2	3	1-3	4	2	2	2
8_{12}	2	2-3	1	2-4	2-3	1	2	2-3	2-4	2-4	3-5	2-3	2-4	2-4
8_{13}	1	2	1	**2**	1	2	2	1	2-3	2-3	3	2	2-3	2-3
8_{13}^*	1	2	1	2-3	2	2	2	1	2-3	2-3	3-4	2	2	2
8_{14}	1	1	1	2	1	2	1	2	2	2	2-3	2	3	2-3
8_{14}^*	1	2	1	3	2	2	2	2	3	2	4	2	2	2
8_{15}	2	1-2	2-3	1	1	2-3	1-3	2-3	1	2-3	1-2	1-2	4	3-4
8_{15}^*	2	3	2-3	4	3	2-3	3	2-3	4	2-3	5	3	1-2	1-2
8_{16}	1-2	1	1	1-2	1	1-2	1-2	1	2	2	2-3	1-2	3-4	2-3
8_{16}^*	1-2	2	1	3	2-3	1-2	2	1	3	2	4	2-3	2	1-2
8_{17}	1	1	2	2	1-2	1-2	1-2	2	2	2	3	1-2	2-3	1-2
8_{17}^*	1	1	2	2	1-2	1-2	1	2	2	2	3	1-2	2-3	1-2
8_{18}	1-2	1	1-3	2	1-2	1-3	1-2	2	2	1-2	3	1-3	2-3	1-2
8_{18}^*	1-2	1	1-3	2	1-2	1-3	1-2	2	2	1-2	3	1-3	2-3	1-2
8_{19}	3	4	3-4	5	4	3-4	4	3	5	3	6	4	2	2-3
8_{19}^*	3	2	3-4	1	**2**	3-4	2-3	3	1	3	1-2	2-3	5	4-5
8_{20}	1	1-2	1-2	**2**	1	1-2	1-2	1	2-3	1	3	1-2	2-3	2-3
8_{20}^*	1	1-2	1-2	2-3	1-2	1-2	1-2	1	2-3	1	3-4	1-2	2	2
8_{21}	1	1-2	1-2	1-3	1-2	2	1	2	1	1-3	2-4	1-2	3	2-3
8_{21}^*	1	2	1-2	3	2	2	2	2	3	1-3	4	2	1-3	1-3
$3_1 \# 5_1$	3	2	3-4	1	**2**	3-4	2-3	3	1	3	2	2-3	5	4-5
$3_1^* \# 5_1^*$	3	4	3-4	5	4	3-4	4	3	5	3	6	4	2	2-3
$3_1 \# 5_1^*$	2-3	2	1-4	3	2-3	2-4	2-3	2-3	3	1	4	2-4	2	1-3
$3_1^* \# 5_1$	2-3	2	1-4	1	**2**	2-4	1-3	2-3	1-3	1-3	2	1-3	3-**4**	2-**3**
$3_1 \# 5_2$	2	1	2-3	2	1	2-3	1-2	2	1	2	1-3	1-2	4	3-4
$3_1^* \# 5_2^*$	2	3	2-3	4	3	2-3	3	2	4	2	5	3	1-2	2
$3_1 \# 5_2^*$	2	1	1-3	2	1-2	2-3	2	2	2	1	3	2-3	2	2
$3_1^* \# 5_2$	2	1-2	1-3	**2**	1	2-3	2-3	2	2-3	1-2	3	2	2-3	2
$4_1 \# 4_1$	2	2-3	1	2-4	2-3	2	2	2-3	2-4	2-4	3-5	2-3	2-4	1-4
9_1	4	3	4-5	2	3	4-5	3-4	4	2-4	4	1	3	6	5-6
9_1^*	4	5	4-5	6	5	4-5	5	4	6	4	7	5	2	**3**
9_2	1	2	2	2-3	2	2	2	2	1-3	1-3	2-3	1	3	2-3
9_2^*	1	2	2	3	2	2	2	2	3	1-3	4	2	2	2-3
9_3	3	4	3-4	5	4	3-4	4	3-4	5	3-4	6	4	1	2
9_3^*	3	2-3	3-4	2	2	3-4	2-4	3-4	2-4	3-4	1	2	5	4-5
9_4	2	2-3	2-3	2	2	2-3	2-3	2-3	1-4	2-4	2	1	4	3-4
9_4^*	2	3	2-3	4	3	2-3	3	2-3	4	2-4	5	3	1	2
9_5	2	2-3	2-3	3-4	2-3	2-3	2-3	2-3	3-4	2-3	4-5	2-3	2	1
9_5^*	2	2	2-3	2	1	2-3	2-3	2-3	2-3	2-3	2-3	1	3-4	2-4
9_6	3	2	3-4	1	2	3-4	2-3	3	1-3	3	1	2	5	4-5
9_6^*	3	4	3-4	5	4	3-4	4	3	5	3	6	4	2	2-3
9_7	2	1	2-3	2	2	2-3	2	2	2	2	2	1	4	3-4
9_7^*	2	3	2-3	4	3	2-3	3	2	4	2	5	3	**2**	2
9_8	2	1	1	2	2	2	2	2	2	2	2-3	2	3-4	2-4

Table 7.7 Strand Passage Metric on Unoriented DNA Knots: d_2 (cont.)

	0_1	3_1	4_1	5_1	5_2	6_1	6_2	6_3	$3_1 \# 3_1$	$3_1 \# 3_1^*$	7_1	7_2	7_3
9_8^*	2	2-3	1	3-4	2-3	1	2	2	3-4	2	4-5	2-3	2-3
9_9	3	2	3-4	2	2	3-4	2-3	3	2-3	3	1	**2**	5
9_9^*	3	4	3-4	5	4	3-4	4	3	5	3	6	4	1
9_{10}	2-3	3-4	2-4	4-5	3-4	2-4	3-4	2-3	4-5	2-3	5-6	3-4	1
9_{10}^*	2-3	2	2-4	2	2	2-4	2-3	2-3	1-3	2-3	**2**	2	4-5
9_{11}	2	3	2	4	3	2-3	3	2-3	4	2-3	5	3	1
9_{11}^*	2	2	2	1	1	2-3	2-3	2-3	1-3	2-3	2	2	4
9_{12}	1	2	2	2-3	2	1	2	2	2-3	2-3	2-3	1	3
9_{12}^*	1	2	2	3	2	2	2	2	3	2-3	4	2	**2**
9_{13}	2-3	3-4	2-4	4-5	3-4	2-4	3-4	2-3	4-5	2-3	5-6	3-4	1
9_{13}^*	2-3	2	2-4	1	2	2-4	2-3	2-3	2-3	2-3	2	**2**	4-5
9_{14}	1	2	2	2-3	2	2	2	2	2-3	2	3-4	2	2
9_{14}^*	1	1	2	2	1	1	2	2	2	2	3	2	2-3
9_{15}	2	2-3	1	3-4	2-3	2	2	2-3	3-4	2-3	4-5	2-3	2
9_{15}^*	2	2	1	**2**	1	2	2	2-3	2-3	2-3	2-3	1	3-4
9_{17}	2	2	1	2-3	2-3	2	1	2-3	2-3	2-3	2-4	2-3	3-4
9_{17}^*	2	2	1	3	2-3	2	2	2-3	3	2-3	4	2-3	2-4
9_{18}	2	2	2-3	2	1	2-3	2-3	2-3	2-3	2-3	**2**	1	4
9_{18}^*	2	3	2-3	4	3	2-3	3	2-3	4	2-3	5	3	1
9_{19}	1	2	1	2-3	2	1	2	2	2-3	2-3	3-4	2	2-3
9_{19}^*	1	2	1	2-3	2	2	2	2	2-3	2-3	3-4	2	2-3
9_{20}	2	1	2	2	1	**2**	1	2	2	2	**2**	2	4
9_{20}^*	2	3	2	4	3	2-3	3	2	4	2	5	3	2
9_{21}	1	2	2	3	2	2	2	2	3	2	4	2	2
9_{21}^*	1	1	2	2	1	2	2	2	2	2	2-3	2	3
9_{23}	2	2	2-3	1	1	2-3	2-3	2-3	2-3	2-3	2	2	4
9_{23}^*	2	3	2-3	4	3	2-3	3	2-3	4	2-3	5	3	2
9_{26}	1	2	2	3	2	2	2	2	3	2	4	2	2
9_{26}^*	1	1	2	1	1	2	1	2	2	2	2	2	3
9_{27}	1	1	1	2	2	2	2	1	2	2	3	2	2-3
9_{27}^*	1	2	1	2-3	2	2	1	1	2-3	2	3-4	2	2-3
9_{31}	2	1	2-3	1	1	2-3	2	1	2	2	2	2	3-4
9_{31}^*	2	2	2-3	3	2-3	2-3	2-3	1	3	2	4	2-3	2
$3_1 \# 6_1$	2	1	2	2	2	1	2	2	1-2	1-2	2-3	2-3	3-4
$3_1^* \# 6_1^*$	2	2-3	2	3-4	2-3	1-**2**	2-3	2	3-4	1-2	4-5	2-3	2-3
$3_1 \# 6_1^*$	2	1	2	2	2	1-**2**	2	2	1-2	1-2	2-3	2-3	3-4
$3_1^* \# 6_1$	2	2-3	2	3-4	2-3	1	**2**	2	3-4	1-2	4-5	2-3	2-3
$3_1 \# 6_2$	2	1	2	1-2	1-2	**2**	1	2	1	2	1-3	1-3	4
$3_1^* \# 6_2^*$	2	3	2	4	3	2-3	3	2	4	2	5	3	1-3
$3_1 \# 6_2^*$	2	1	2	2	2	2-3	1-2	2	2	1	3	1-3	2-4
$3_1^* \# 6_2$	2	1-2	2	2-3	2-3	**2**	1	2	2-3	1-2	3-4	1-3	2-3
$3_1 \# 6_3$	2	1	2-3	2	2	2-3	2	1	1	1	2-3	2-3	3-4
$3_1^* \# 6_3$	2	2	2-3	3	2-3	2-3	2-3	1	3	1-2	4	2-3	1-3
$3_1 \# 3_1 \# 3_1$	3	2	3-4	2-3	2-3	3-4	2-3	3	1	3	2-4	2-4	5
$3_1^* \# 3_1^* \# 3_1^*$	3	4	3-4	5	4	3-4	4	3	5	3	6	4	2-4
$3_1 \# 3_1^* \# 3_1^*$	2-3	2	2-4	3	2-3	2-4	2-3	2-3	3	1	4	2-4	2-4
$3_1 \# 3_1 \# 3_1^*$	2-3	2	2-4	2-3	2-3	2-4	2-3	2-3	1	1	2-4	2-4	3-4

Table 7.7 Strand Passage Metric on Unoriented DNA Knots: d_2 (cont.)

	0_1	3_1	4_1	5_1	5_2	6_1	6_2	6_3	$3_1 \# 3_1$	$3_1 \# 3_1^*$	7_1	7_2	7_3	7_4
$4_1 \# 5_1$	2-3	2	**2**	1	**2**	2-**3**	2-3	2-3	2-3	2-3	2	2-3	4-5	3-5
$4_1 \# 5_1^*$	2-3	3-4	**2**	4-5	3-4	2-**3**	**3**	2-3	4-5	2-3	5-6	3-4	2	1-3
$4_1 \# 5_2$	2	1-2	1	1-**2**	1	2	2	1-3	2-3	2-3	2-3	2	3-4	2-4
$4_1 \# 5_2^*$	2	2-3	1	3-4	2-3	2	2	1-3	3-4	2-3	4-5	2-3	2	1-2
10_1	1	2	2	2-3	2	2	2	2	2-3	2-3	3-4	2	2-3	2-3
10_1^*	1	2	2	2-3	2	2	2	2	2-3	2-3	3-4	2	2-3	2-3
10_2	3	2	3	1	**2**	3	2	3	2-3	3	1	2-3	5	4-5
10_2^*	3	4	3	5	4	3-4	4	3	5	3	6	4	2	2-3
10_3	2	2-3	2-3	2-4	2-3	2	2-3	2-3	2-4	2-4	3-5	2-3	2-4	2-4
10_3^*	2	2-3	2-3	2-4	2-3	2	2-3	2-3	2-4	2-4	3-5	2-3	2-4	2-4
10_4	2	2-3	2	2-4	2-3	**2**	2	2-3	1-4	1-4	2-5	2-3	3-4	2-4
10_4^*	2	2-3	2	3-4	2-3	1	**2**	2-3	3-4	1-4	4-5	2-3	2-4	2-4
10_5	2	3	2-3	4	3	2-3	3	2	4	2	5	3	2	2
10_5^*	2	1	2-3	1	2	2-3	2	2	1-2	2	1	2-3	4	3-4
10_6	2-3	2	2-3	1	**2**	2	2	2-3	2-3	2-3	2	2-3	4-5	3-5
10_6^*	2-3	3-4	2-3	4-5	3-4	2-3	3-4	2-3	4-5	2-3	5-6	3-4	2	2-3
10_7	1	2	2	2-3	2	2	2	2	2-3	2-3	2-3	1	3	2-3
10_7^*	1	2	2	3	2	2	2	2	3	2-3	4	2	**2**	2-3
10_8	2	2	2	2	2-3	**2**	1	2-3	2-3	2-3	2-3	2-3	4	3-4
10_8^*	2	3	2	4	3	2	3	2-3	4	2-3	5	3	2-3	2-3
10_9	1	2	2	3	2	2	2	2	3	1-2	4	2	2-3	2
10_9^*	1	1	2	2	2	2	2	2	1-2	1-2	2-3	2	3	2-3
10_{10}	1	2	1	2-3	2	2	2	2	2-3	1-3	3-4	2	**2**	2-3
10_{10}^*	1	2	1	2-3	2	1	2	2	2-3	1-3	3	1	2-3	2-3
10_{11}	2-3	2	2	2-3	2-3	2	2	2-3	2-3	2-3	2-4	2-4	3-5	2-5
10_{11}^*	2-3	2-4	2	3-5	2-4	2	2-3	2-3	3-5	2-3	4-6	2-4	2-4	2-3
10_{12}	2	2	2-3	3	2-3	2-3	2-3	2	3	2-3	4	2-3	1	**2**
10_{12}^*	2	2	2-3	1	2	2-3	2-3	2	2-3	2-3	2	**2**	3-4	2-3
10_{13}	2	2-3	2	2-4	2-3	1	**2**	2-3	2-4	2-4	3-5	2-3	2-4	2-4
10_{13}^*	2	2-3	2	2-4	2-3	2	2-3	2-3	2-4	2-4	3-5	2-3	2-4	2-4
10_{14}	2	1	2	1	2	2-3	2	2	1-2	2	2	**2**	4	3-4
10_{14}^*	2	3	2	4	3	2-3	3	2	4	2	5	3	1	2
10_{15}	2	2	2-3	3	2	2-3	2-3	1	3	2-3	4	2-3	2	2-3
10_{15}^*	2	2	2-3	1	**2**	2-3	2-3	1	2-3	2-3	2	2-3	3	2-3
10_{16}	2	2-3	2	3-4	2-3	2	2-3	2-3	3-4	2-4	4-5	2-3	2-3	2-3
10_{16}^*	2	2-3	2	2-**3**	2	1	2	2-3	2-4	2-4	2-4	2-3	3-4	2-4
10_{17}	1	2	2	2	2	2	2	2	2-3	2-3	3	2	2-3	2-3
10_{18}	1	2	1	2-3	2	2	2	2	2-3	2-3	2-4	2	3	2-3
10_{18}^*	1	2	1	3	2	1	2	2	3	2-3	4	2	2-3	2-3
10_{19}	2	1	1	2	2	2	1	2	2	2	2-3	2-3	3	2-3
10_{19}^*	2	2-3	1	**3**	2	2	2	2	3-4	2	4	2-3	2-3	2
10_{20}	2	1	2-3	2	2	2	2	2	2	2	2-3	2-3	3-4	2-4
10_{20}^*	2	2-3	2-3	3-4	2-3	2-3	2-3	2	3-4	2	4-5	2-3	2-3	2
10_{21}	2	2	2-3	2	1	2	2	2-3	2-3	2-3	**2**	2	4	3-4
10_{21}^*	2	3	2-3	4	3	2-3	3	2-3	4	2-3	5	3	1	2
10_{22}	2	2-3	2	2-4	2-3	2-3	2	2-3	2-4	2-3	3-5	2-3	2-4	2-3
10_{22}^*	2	2	2	2-3	2-3	2	1	2-3	2-3	2-3	3-4	2-3	2-4	2-4

Table 7.7 Strand Passage Metric on Unoriented DNA Knots: d_2 (cont.)

	0_1	3_1	4_1	5_1	5_2	6_1	6_2	6_3	$3_1 \# 3_1$	$3_1 \# 3_1^*$	7_1	7_2	7_3	7_4
10_{23}	1	2	2	3	2	2	2	2	3	2-3	4	2	1	2
10_{23}^*	1	2	2	2	1	2	2	2	2-3	2-3	**2**	2	3	2-3
10_{24}	2	2	2-3	**2**	1	2	2	2-3	2-3	2-3	2-3	2	3-4	2-4
10_{24}^*	2	2-3	2-3	3-4	2-3	2-3	2-3	2-3	3-4	2-3	4-5	2-3	2	2
10_{25}	2	1	2-3	2	2	2	2	2	2	2	**2**	**2**	4	3-4
10_{25}^*	2	3	2-3	4	3	2-3	3	2	4	2	5	3	2-3	2
10_{26}	1	2	1	2-3	2	2	2	2	2-3	2-3	3-4	2	2-3	2-3
10_{26}^*	1	2	1	2-3	2	2	2	2	2-3	2-3	3-4	2	2-3	2-3
10_{27}	1	2	2	3	2	2	2	2	3	2	4	2	2-3	2
10_{27}^*	1	1	2	2	2	2	1	2	2	2	**2**	2	3	2-3
10_{28}	2	2	2	2-3	2-3	2-3	2-3	1	2-3	2-3	3-4	2-3	2	1
10_{28}^*	2	2	2	**2**	1	2-3	2-3	1	2-3	2-3	3	2	2-4	2-3
10_{29}	2	2	2	2-3	2-3	1	1	2-3	1-3	1-3	2-4	2-3	3-4	2-4
10_{29}^*	2	2-3	2	3-4	2-3	2	2-3	2-3	3-4	1-3	4-5	2-3	2-4	2-3
10_{30}	1	2	2	**2**	1	2	1	2	2-3	2-3	2-3	2	3	2-3
10_{30}^*	1	2	2	3	2	2	2	2	3	2-3	4	2	2	1
10_{31}	1	1	2	2	2	2	2	2	2	1-2	3	2	2	2
10_{31}^*	1	2	2	**2**	1	2	2	2	2-3	1-2	3	2	2-3	2
10_{32}	1	1	2	2	2	2	2	1	2	1-2	3	2	2-3	2-3
10_{32}^*	1	2	2	2-3	2	2	1	1	2-3	1-2	3-4	2	2-3	2
10_{33}	1	2	2	2-3	2	1	2	2	2-3	2-3	3-4	2	2-3	2-3
10_{34}	2	1	2-3	2	2	2-3	2	2	2	2	3	2-3	2	2
10_{34}^*	2	2	2-3	**2**	1	2-3	2-3	2	2-3	2	3	1	2-3	2
10_{35}	2	2-3	1	2-4	2-3	2	2	2-3	2-4	2-4	3-5	2-3	2-4	2-4
10_{35}^*	2	2-3	1	2-4	2-3	1	2	2-3	2-4	2-4	3-5	2-3	2-4	2-4
10_{36}	2	1	1	2	1	2	2	2	2	2	2-3	1	3-4	2-4
10_{36}^*	2	2-3	1	3-4	2-3	2	2	2	3-4	2	4-5	2-3	2	2
10_{37}	2	2	2-3	**2**	1	2-3	2-3	2	2-3	2-3	3	2	2	2
10_{38}	2	2	2	**2**	1	1	1	2-3	2-3	2-3	2-3	2	3-4	2-4
10_{38}^*	2	2-3	2	3-4	2-3	**2**	2-3	2-3	3-4	2-3	4-5	2-3	2	2
10_{39}	2	2	2	2	1	**2**	1	2-3	2-3	2-3	**2**	2	4	3-4
10_{39}^*	2	3	2	4	3	2-3	3	2-3	4	2-3	5	3	2	2
10_{40}	2	2	2-3	3	2-3	2-3	2-3	1	3	2	4	2-3	2	2
10_{40}^*	2	1	2-3	2	1	2-3	2	1	2	2	**2**	2	3-4	2-3
10_{41}	2	2	1	2-3	2	1	1	2-3	2-3	2-3	2-4	**2**	3-4	2-4
10_{41}^*	2	2-3	1	3-4	2-3	2	2	2-3	3-4	2-3	4-5	2-3	2-3	2-3
10_{42}	1	2	1	2-3	2	1	1	1	2-3	1-3	3-4	2	2-3	2-3
10_{42}^*	1	2	1	2-3	2	2	2	1	2-3	1-3	3-4	2	2-3	2-3
10_{43}	2	1	2	2	2	2-3	2	2	2	2	3	**2**	2-3	2
10_{44}	1	1	1	2	2	2	2	1	2	2	2-3	2	3	2-3
10_{44}^*	1	2	1	3	2	2	2	1	3	2	4	2	2-3	2
10_{45}	2	2	1	2-3	2-3	1	1	2-3	2-3	2-3	3-4	2-3	2-4	2-3
$3_1 \# 7_1$	4	3	4-5	2	3	4-5	3-4	4	2	4	1	3	6	5-6
$3_1^* \# 7_1^*$	4	5	4-5	6	5	4-5	5	4	6	4	7	5	**2**	**3**
$3_1 \# 7_1^*$	2-4	3	2-5	4	3-4	2-5	3-4	2-4	4	2	5	3-5	1-**2**	2-**3**
$3_1^* \# 7_1$	2-4	1-3	2-5	2	1-3	2-5	1-4	2-4	1-4	2-4	1	1-3	4-**5**	3-**4**
$3_1 \# 7_2$	2	1	2-3	1-2	1-2	2-3	1-2	2	1-2	2	1-3	1	4	3-4

Table 7.7 Strand Passage Metric on Unoriented DNA Knots: d_2 (cont.)

	0_1	3_1	4_1	5_1	5_2	6_1	6_2	6_3	$3_1 \# 3_1$	$3_1 \# 3_1^*$	7_1	7_2	7_3
$3_1^* \# 7_2^*$	2	3	2-3	4	3	2-3	3	2	4	2	5	3	1-**2**
$3_1 \# 7_2^*$	2	1	2-3	2	2	2-3	1-2	2	2	1-2	3	1-3	**2**
$3_1^* \# 7_2$	2	1-3	2-3	2-3	2	2-3	1-3	2	2-4	1-2	3	1	2-3
$3_1 \# 7_3$	2-3	2	1-4	3	2-3	2-4	2-3	1-3	3	2	4	2-4	1
$3_1^* \# 7_3^*$	2-3	2-3	1-4	2	1-2	2-4	1-4	1-3	2-4	2-3	**2**	1-**2**	3-4
$3_1 \# 7_3^*$	3	2	3-4	2	2	3-4	2-3	3	2	3	1-**2**	**2**	5
$3_1^* \# 7_3$	3	4	3-4	5	4	3-4	4	3	5	3	6	4	1
$3_1 \# 7_4$	2-3	2	2-4	2-3	2-3	1-4	2-3	2-3	2-3	1	3-4	2-4	**2**
$3_1^* \# 7_4^*$	2-3	2	2-4	2-3	2	1-4	2-3	2-3	2-3	1-3	**3**	2-3	2-4
$3_1 \# 7_4^*$	2-3	2	2-4	2-3	2	2-4	2-3	2-3	1	2-3	2-**3**	2-3	4-5
$3_1^* \# 7_4$	2-3	3-4	2-4	4-5	3-4	2-4	3-4	2-3	4-5	2-3	5-6	3-4	**2**
$3_1 \# 7_5$	3	2	3-4	2	2	3-4	2-3	3	1	3	**2**	**2**	5
$3_1^* \# 7_5^*$	3	4	3-4	5	4	3-4	4	3	5	3	6	4	2-3
$3_1 \# 7_5^*$	2-3	2	2-4	3	2-3	2-4	2-3	1-3	3	1	4	2-4	2-3
$3_1^* \# 7_5$	2-3	2	2-4	2	2	2-4	2-3	1-3	1-3	1-3	**2**	**2**	3-4
$3_1 \# 7_6$	2	1	2	1-2	2	2-3	1-2	2	1	2	2-3	1-**2**	4
$3_1^* \# 7_6^*$	2	3	2	4	3	2-3	3	2	4	2	5	3	1-3
$3_1 \# 7_6^*$	2	1	2	2	1-2	2-3	2	2	2	1	3	2-3	2-3
$3_1^* \# 7_6$	2	1-2	2	2-3	1-2	2-3	2-3	2	2-3	1-2	3-4	**2**	2-3
$3_1 \# 7_7$	2	1	2	2	2	1-3	2	2	1-2	1	2-3	2-3	3-4
$3_1^* \# 7_7^*$	2	2	2	3	2-3	1-3	2-3	2	3	1-2	4	2-3	2-3
$3_1 \# 7_7^*$	2	1	2	2	2	1-3	2	2	1	1-2	2-3	2-3	3-4
$3_1^* \# 7_7$	2	2-3	2	3-4	2-3	1-3	2-3	2	3-4	1-2	4-5	2-3	2-3
$3_1 \# 3_1 \# 4_1$	2-3	1-2	2	1-3	1-3	2-3	1-3	2-3	1	2-3	1-4	1-4	4-5
$3_1^* \# 3_1^* \# 4_1$	2-3	3-4	2	4-5	3-4	2-3	3	2-3	4-5	2-3	5-6	3-4	1-4
$3_1 \# 3_1^* \# 4_1$	2-3	1-2	1-2	2-3	1-3	1-3	1-3	2-3	2-3	1	3-4	1-4	2-4
$4_1 \# 6_1$	2	2-3	1	2-4	2-3	1	1-2	2-3	2-4	1-4	3-5	1-3	2-4
$4_1 \# 6_1^*$	2	2-3	1	2-4	2-3	1-2	1-2	2-3	2-4	1-4	3-5	1-3	2-4
$4_1 \# 6_2$	2	2	1	1-3	2-3	1-2	1	2-3	2-3	2-3	2-4	1-3	3-4
$4_1 \# 6_2^*$	2	2-3	1	3-4	2-3	1-2	2	2-3	3-4	2-3	4-5	2-3	2-4
$4_1 \# 6_3$	2	2	1	2-3	1-3	2	2	1	2-3	2-3	3-4	2-3	2-4
$5_1 \# 5_1$	4	3	4-5	2	**3**	4-5	3-4	4	2	4	2-3	3-4	6
$5_1^* \# 5_1^*$	4	5	4-5	6	5	4-5	5	4	6	4	7	5	2-3
$5_1 \# 5_1^*$	2-4	2-3	1-5	**2**	2-**3**	2-5	2-4	2-4	2-4	2	**3**	2-**4**	2-3
$5_1 \# 5_2$	3	2	3-4	1	2	3-4	2-3	3	2	3	2	2-3	5
$5_1^* \# 5_2^*$	3	4	3-4	5	4	3-4	4	3	5	3	6	4	2
$5_1 \# 5_2^*$	2-3	2	1-4	1	**2**	1-4	1-3	2-3	2-3	2	2	1-3	3
$5_1^* \# 5_2$	2-3	2-3	1-4	**3**	2	1-4	2-4	2-3	3-4	2-3	4	2-3	2
$5_2 \# 5_2$	2	2	2-3	**2**	1	2-3	2-3	2-3	2	2-3	1-3	2	4
$5_2^* \# 5_2^*$	2	3	2-3	4	3	2-3	3	2-3	4	2-3	5	3	2
$5_2 \# 5_2^*$	2	2	2-3	**2**	1	2-3	2-3	2-3	2-3	2	3	2	2