

	$n = 3$	$n = 4$	$n = 5$	$n = 6$
$k = 1$	$(123)^{\ell-1}1, 2, 3$	$(1234)^{\ell-1}1, 2, 3, 4$	$(12345)^{\ell-1}1, 2, 3, 4, 5$	$(123456)^{\ell-1}1, 2, 3, 4, 5, 6$
$k = 2$	$(213)^{\ell-1}2, 1, 3$	$(24)^{\ell-1}2, 4, 3^{\ell}, 1^{\ell}$	$(24135)^{\ell-1}2, 4, 1, 5, 3$	$(246)^{\ell-1}2, 4, 6, (315)^{\ell-1}3, 1, 5$
$k = 3$	$3^{\ell}, (12)^{\ell-1}1, 2$	$(3214)^{\ell-1}3, 2, 4, 1$	$(31425)^{\ell-1}3, 1, 5, 2, 4$	$(36)^{\ell-1}3, 6, (4215)^{\ell-1}4, 2, 5, 1$
$k = 4$	$(123)^{\ell-1}1, 3, 2$	$4^{\ell}, (123)^{\ell-1}1, 3, 2$	$(43215)^{\ell-1}4, 3, 5, 2, 1$	$(426)^{\ell-1}4, 2, 1^{\ell}, 356, 5^{\ell-1}, 3^{\ell-1}$
$k = 5$	$(213)^{\ell-1}2, 3, 1$	$(1234)^{\ell-1}1, 3, 4, 2$	$5^{\ell}, (1234)^{\ell-1}1, 3, 4, 2$	$(543216)^{\ell-1}5, 4, 6, 2, 3, 1$
$k = 6$	$3^{\ell}, 2^{\ell}, 1^{\ell}$	$(24)^{\ell-1}2, 1^{\ell}, 4, 3^{\ell}$	$(12345)^{\ell-1}1, 3, 2, 5, 4$	$6^{\ell}, (12345)^{\ell-1}1, 3, 2, 5, 4$
$k = 7$		$(3214)^{\ell-1}3, 4, 1, 2$	$(24135)^{\ell-1}2, 5, 1, 3, 4$	$(123456)^{\ell-1}1, 3, 6, 2, 4, 5$
$k = 8$		$4^{\ell}, (213)^{\ell-1}2, 1, 3$	$(31425)^{\ell-1}3, 2, 5, 4, 1$	$(246)^{\ell-1}2, 536, 5^{\ell-1}, 314, 3^{\ell-2}, 1^{\ell-1}$
$k = 9$		$(1234)^{\ell-1}1, 4, 2, 3$	$(43215)^{\ell-1}4, 5, 3, 1, 2$	$(36)^{\ell-1}3, 16, (1245)^{\ell-2}1, 5^2, (24)^{12}, 4$
$k = 10$		$(24)^{\ell-1}2, 34, 3^{\ell-1}, 1^{\ell}$	$5^{\ell}, (24)^{\ell-1}2, 34, 3^{\ell-1}, 1^{\ell}$	$(426)^{\ell-1}4, 3^{\ell}, 6, 12, 1^{\ell-1}, 5^{\ell}$
$k = 11$		$(3214)^{\ell-1}3, 1, 2, 4$	$(12345)^{\ell-1}1, 4, 2, 3, 5$	$(543216)^{\ell-1}5, 6, 3, 1, 2, 4$
$k = 12$		$4^{\ell}, 3^{\ell}, 2^{\ell}, 1^{\ell}$	$(24135)^{\ell-1}2, 1, 5, 4, 3$	$6^{\ell}, (24135)^{\ell-1}2, 1, 5, 4, 3$
$k = 13$			$(31425)^{\ell-1}3, 4, 5, 1, 2$	$(123456)^{\ell-1}1, 4, 5, 6, 2, 3$
$k = 14$			$(43215)^{\ell-1}4, 1, 3, 2, 5$	$(246)^{\ell-1}2, 6, (35)^{\ell-1}3, 5, 4, 1^{\ell}$
$k = 15$			$5^{\ell}, (3214)^{\ell-1}3, 2, 4, 1$	$(36)^{\ell-1}3, 2^{\ell}, 6, 5^{\ell}, (14)^{\ell-1}1, 4$
$k = 16$			$(12345)^{\ell-1}1, 5, 2, 4, 3$	$(426)^{\ell-1}4, 56, 5^{\ell-1}, 12, 1^{\ell-1}, 3^{\ell}$
$k = 17$			$(24135)^{\ell-1}2, 3, 5, 1, 4$	$(543216)^{\ell-1}5, 1, 2, 4, 6, 3$
$k = 18$			$(31425)^{\ell-1}3, 5, 4, 2, 1$	$6^{\ell}, (31425)^{\ell-1}3, 5, 4, 2, 1$
$k = 19$			$(43215)^{\ell-1}4, 2, 3, 5, 1$	$(123456)^{\ell-1}1, 5, 3, 4, 6, 2$
$k = 20$			$5^{\ell}, 4^{\ell}, (213)^{\ell-1}2, 1, 3$	$(246)^{\ell-1}2, 1^{\ell}, 6, 4, 3^{\ell}, 5^{\ell}$
$k = 21$			$(12345)^{\ell-1}1, 2, 5, 3, 4$	$(36)^{\ell-1}3, 456, (1245)^{\ell-2}124, 2, 5, 1$
$k = 22$			$(24135)^{\ell-1}2, 4, 5, 3, 1$	$(426)^{\ell-1}4, 6, 2, (351)^{\ell-1}3, 1, 5$
$k = 23$			$(31425)^{\ell-1}3, 1, 4, 5, 2$	$(543216)^{\ell-1}5, 2, 6, 3, 4, 1$
$k = 24$			$(43215)^{\ell-1}4, 3, 2, 1, 5$	$6^{\ell}, (43215)^{\ell-1}4, 3, 2, 1, 5$
$k = 25$			$5^{\ell}, (1234)^{\ell-1}1, 2, 3, 4$	$(123456)^{\ell-1}1, 6, 2, 3, 4, 5$
$k = 26$			$(12345)^{\ell-1}1, 3, 5, 4, 2$	$(246)^{\ell-1}2, 34, 6, (315)^{\ell-2}3, 1^2, 5^2$
$k = 27$			$(24135)^{\ell-1}2, 5, 4, 1, 3$	$(36)^{\ell-1}3, 5146, (4215)^{\ell-2}4, 2^2, 5, 1$
$k = 28$			$(31425)^{\ell-1}3, 2, 4, 1, 5$	$(426)^{\ell-1}4, 152, 1^{\ell-1}, 356, 5^{\ell-2}, 3^{\ell-1}$
$k = 29$			$(43215)^{\ell-1}4, 5, 2, 3, 1$	$(543216)^{\ell-1}5, 3, 4, 1, 2, 6$
$k = 30$			$5^{\ell}, (24)^{\ell-1}2, 1^{\ell}, 4, 3^{\ell}$	$6^{\ell}, 5^{\ell}, (24)^{\ell-1}2, 1^{\ell}, 4, 3^{\ell}$
$k = 31$			$(12345)^{\ell-1}1, 4, 5, 2, 3$	$(123456)^{\ell-1}1, 2, 5, 6, 3, 4$
$k = 32$			$(24135)^{\ell-1}2, 1, 4, 3, 5$	$(246)^{\ell-1}2, 4, 3^{\ell}, 6, 5^{\ell}, 1^{\ell}$
$k = 33$			$(31425)^{\ell-1}3, 4, 2, 5, 1$	$(36)^{\ell-1}3, 6, (1245)^{\ell-1}1, 5, 2, 4$
$k = 34$			$(43215)^{\ell-1}4, 1, 2, 5, 3$	$(426)^{\ell-1}4, 2, (51)^{\ell-1}5, 6, 3^{\ell}, 1$
$k = 35$			$5^{\ell}, (3214)^{\ell-1}3, 1, 2, 4$	$(543216)^{\ell-1}5, 4, 2, 6, 1, 3$
$k = 36$			$(12345)^{\ell-1}1, 5, 4, 3, 2$	$6^{\ell}, (12345)^{\ell-1}1, 5, 4, 3, 2$
$k = 37$			$(24135)^{\ell-1}2, 3, 4, 5, 1$	$(123456)^{\ell-1}1, 3, 4, 5, 6, 2$
$k = 38$			$(31425)^{\ell-1}3, 5, 2, 1, 4$	$(246)^{\ell-1}2, 536, (35)^{\ell-2}3, 5, 4, 1^{\ell}$
$k = 39$			$(43215)^{\ell-1}4, 2, 1, 3, 5$	$(36)^{\ell-1}3, 16, (4215)^{\ell-2}421, 5^2, 2, 4$
$k = 40$			$5^{\ell}, 4^{\ell}, (123)^{\ell-1}1, 3, 2$	$(426)^{\ell-1}4, 3^{\ell}, 2, 56, 5^{\ell-1}, 1^{\ell}$
$k = 41$			$(12345)^{\ell-1}1, 2, 4, 5, 3$	$(543216)^{\ell-1}5, 6, 1, 3, 4, 2$
$k = 42$			$(24135)^{\ell-1}2, 4, 3, 1, 5$	$6^{\ell}, (24135)^{\ell-1}2, 4, 3, 1, 5$
$k = 43$			$(31425)^{\ell-1}3, 1, 2, 4, 5$	$(123456)^{\ell-1}1, 4, 2, 3, 5, 6$
$k = 44$			$(43215)^{\ell-1}4, 3, 1, 5, 2$	$(246)^{\ell-1}2, 6, 5^{\ell}, 314, 3^{\ell-1}, 1^{\ell-1}$
$k = 45$			$5^{\ell}, (1234)^{\ell-1}1, 4, 2, 3$	$(36)^{\ell-1}3, 2^{\ell}, 456, 5^{\ell-1}, (14)^{\ell-1}, 1$
$k = 46$			$(12345)^{\ell-1}1, 3, 4, 2, 5$	$(426)^{\ell-1}4, 56, 2, (351)^{\ell-2}35, 3, 1^2$
$k = 47$			$(24135)^{\ell-1}2, 5, 3, 4, 1$	$(543216)^{\ell-1}5, 1, 4, 2, 3, 6$
$k = 48$			$(31425)^{\ell-1}3, 2, 1, 5, 4$	$6^{\ell}, (31425)^{\ell-1}3, 2, 1, 5, 4$
$k = 49$			$(43215)^{\ell-1}4, 5, 1, 2, 3$	$(123456)^{\ell-1}1, 5, 6, 2, 3, 4$
$k = 50$			$5^{\ell}, (24)^{\ell-1}2, 4, 3^{\ell}, 1^{\ell}$	$(246)^{\ell-1}2, 1^{\ell}, 4, 6, 5^{\ell}, 3^{\ell}$
$k = 51$			$(12345)^{\ell-1}1, 4, 3, 5, 2$	$(36)^{\ell-1}3, 456, (4215)^{\ell-2}4, 2^2, 5, 1^2$
$k = 52$			$(24135)^{\ell-1}2, 1, 3, 5, 4$	$(426)^{\ell-1}4, 6, 5^{\ell}, 12, 1^{\ell-1}, 3^{\ell}$
$k = 53$			$(31425)^{\ell-1}3, 4, 1, 2, 5$	$(543216)^{\ell-1}5, 2, 3, 6, 1, 4$
$k = 54$			$(43215)^{\ell-1}4, 1, 5, 3, 2$	$6^{\ell}, (43215)^{\ell-1}4, 1, 5, 3, 2$
$k = 55$			$5^{\ell}, (3214)^{\ell-1}3, 4, 1, 2$	$(123456)^{\ell-1}1, 6, 4, 5, 2, 3$
$k = 56$			$(12345)^{\ell-1}1, 5, 3, 2, 4$	$(246)^{\ell-1}2, 34, 3^{\ell-1}, 6, 5^{\ell}, 1^{\ell}$
$k = 57$			$(24135)^{\ell-1}2, 3, 1, 4, 5$	$(36)^{\ell-1}3, 5146, (1245)^{\ell-2}1, 5, 24, 2$
$k = 58$			$(31425)^{\ell-1}3, 5, 1, 4, 2$	$(426)^{\ell-1}4, 152, (51)^{\ell-2}5, 6, 3^{\ell}, 1$
$k = 59$			$(43215)^{\ell-1}4, 2, 5, 1, 3$	$(543216)^{\ell-1}5, 3, 1, 4, 6, 2$
$k = 60$			$5^{\ell}, 4^{\ell}, 3^{\ell}, 2^{\ell}, 1^{\ell}$	$6^{\ell}, 5^{\ell}, 4^{\ell}, 3^{\ell}, 2^{\ell}, 1^{\ell}$

Table 1: Hit sequences for $3 \leq n \leq 6$, $1 \leq k \leq \text{lcm}\{1, 2, \dots, n\}$ and $\ell \geq F_{n+2}$. Commas appear only at the end of each round.