

Input (stdin)

Download

1	3
2	2
3	1
4	1
5	100
6	1
7	1
8	999
9	1
10	2

Manasa and Stones

99	998	999	1000	1001	1002	1003	1004	1005	1006	1007	1008	1009	1010	1011	1012	1013	1014	1015	1016	1017	1018	1019	1020	1021	1022	1023	1024	1025	1026	1027	1028	1029	1030	1031	1032	1033
1034	1035	1036	1037	1038	1039	1040	1041	1042	1043	1044	1045	1046	1047	1048	1049	1050	1051	1052	1053	1054	1055	1056	1057	1058	1059	1060	1061	1062	1063	1064	1065	1066	1067	1068	1069	
1070	1071	1072	1073	1074	1075	1076	1077	1078	1079	1080	1081	1082	1083	1084	1085	1086	1087	1088	1089	1090	1091	1092	1093	1094	1095	1096	1097	1098	1099	1100	1101	1102	1103	1104	1105	
1106	1107	1108	1109	1110	1111	1112	1113	1114	1115	1116	1117	1118	1119	1120	1121	1122	1123	1124	1125	1126	1127	1128	1129	1130	1131	1132	1133	1134	1135	1136	1137	1138	1139	1140	1141	
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1178	1179	1180	1181	1182	1183	1184	1185	1186	1187	1188	1189	1190	1191	1192	1193	1194	1195	1196	1197	1198	1199	1200	1201	1202	1203	1204	1205	1206	1207	1208	1209	1210	1211	1212	1213	
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1718	1719	1720	1721	1722	1723	1724	1725	1726	1727	1728	1729	1730	1731	1732	1733	1734	1735	1736	1737	1738	1739	1740	1741	1742	1743	1744	1745	1746	1747	1748	1749	1750	1751	1752	1753	
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1790	1791	1792	1793	1794	1795	1796	1797	1798	1799	1800	1801	1802	1803	1804	1805	1806	1807	1808	1809	1810	1811	1812	1813	1814	1815	1816	1817	1818	1819	1820	1821	1822	1823	1824	1825	
1826	1827	1828	1829	1830	1831	1832	1833	1834	1835	1836	1837	1838	1839	1840	1841	1842	1843	1844	1845	1846	1847	1848	1849	1850	1851	1852	1853	1854	1855	1856	1857	1858	1859	1860	1861	
1862	1863	1864	1865	1866	1867	1868	1869	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	
1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	
1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	
1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996										

X_1, V_1, X_2, V_2

$$X_1 + tV_1 = X_2 + tV_2$$
$$t = \frac{X_2 - X_1}{V_1 - V_2}$$

John Watson knows of an operation called a right circular rotation on an array of integers. One rotation operation moves the last array element to the first position and shifts all remaining elements right one. To test Sherlock's abilities, Watson provides Sherlock with an array of integers. Sherlock is to perform the rotation operation a number of times then determine the value of the element at a given position.

For each array, perform a number of right circular rotations and return the values of the elements at the given indices.

Example

$a = [3, 4, 5]$

$k = 2$

$queries = [1, 2]$

Here k is the number of rotations on a , and $queries$ holds the list of indices to report. First we perform the two rotations:

$[3, 4, 5] \rightarrow [5, 3, 4] \rightarrow [4, 5, 3]$

Now return the values from the zero-based indices 1 and 2 as indicated in the $queries$ array.

$a[1] = 5$

$a[2] = 3$

Sample Input 0

```
3 2 3
1 2 3
0
1
2
```

Sample Output 0

```
2
3
1
```

Function Description

Complete the `circularArrayRotation` function in the editor below.

`circularArrayRotation` has the following parameter(s):

- `int a[n]`: the array to rotate
- `int k`: the rotation count
- `int queries[1]`: the indices to report

Returns

- `int[q]`: the values in the rotated a as requested in m

Input Format

The first line contains 3 space-separated integers, n , k , and q , the number of elements in the integer array, the rotation count and the number of queries.

The second line contains n space-separated integers, where each integer i describes array element $a[i]$ (where $0 \leq i < n$).

Each of the q subsequent lines contains a single integer, $queries[i]$, an index of an element in a to return.

