## Раскодировка Прюфера

По заданному коду Прюфера построить дерево, найти радиус $r$ и диаметр $d$ графа. Записать десятичную кодировку дерева с корнем в вершине 7 .

| Задача | Задача 11.2 | $\text { дача } 11.3$ |
| :---: | :---: | :---: |
| $6,7,10,7,8,4,3,8,13,15$, | $1,6,6,11,5,4,3,8,16,17$, | $2,1,6,9,10,7,8,7,12,15$, |
| $16,17,13,18,20,22,21,16$, | 14, 9, 8, 13, 18, 24, 25, 16, | 16, 12, 17, 14, 19, 19, 18, 21, |
| 17, 18, 19, 19, 20 | 17, 18, 23, 23, 24 | $16,17,18,23,24$ |
|  | 11.3 | 11.3 |
| Задача 11.4 | Задача 11.5 | Задача 11.6 |
| $6,3,8,9,10,7,14,15,11$, | 6, 7, 8, 9, 10, 11, 8, 9, 14, | $6,7,8,9,10,7,8,9,9,14$, |
| $12,20,22,17,18,17,12,7$, | 15, 16, 13, 20, 17, 19, 22, 17, | 12, 17, 14, 15, 20, 21, 18, 19, |
| $8,9,10,15,20,25$ | $18,18,13,14,19,24$ | 20, 25, 22, 23, |
|  | 11.3 |  |
| Задача 11.7 | Задача 11.8 | Задача 11.9 |
| $6,7,4,3,8,7,12,8,13,15$, | 6, 7, 8, 9, 10, 11, 8, 9, 14, | $2,7,8,4,9,6,11,13,14,15$, |
| $12,13,14,15,20,19,16,17$, | $15,16,13,20,17,19,22,17$, | $11,16,18,19,20,18,25,16$, |
| 18, 23, 18, 19, 24 | 18, 18, 13, 14, 19, 24 | 17, 17, 18, 23, 24 |
|  | 11.3 | 11.3 |
| Задача 11.10 | Задача 11.11 | Задача 11.12 |
| $4,3,1,2,3,8,9,14,20,21$, | $6,3,8,9,10,7,8,16,13$, | $2,3,4,5,10,11,12,7,8,8$, |
| $16,11,12,18,17,12,7,8,9$, | 14, 15, 15, 10, 9, 8, 13, 18, | 9, 10, 15, 15, 20, 16, 17, 18, |
| 14, 19, 20, 25 | 21, 16, 17, 18, 23, 24 | 23, 18, 19, 20 |
| 11.3 | 11.3 | ${ }^{11.3}$ |
| Задача 11.13 | Задача 11.14 | Задача 11.15 |
| $6,7,8,4,9,11,12,13,14$, | $6,7,8,9,10,7,12,16,11$, | $1,6,8,9,10,10,9,19,16$, |
| $15,16,17,18,14,19,16,17$, | 12, 23, 18, 17, 12, 13, 19, 14, | 11, 6, 7, 17, 12, 7, 8, 18, 13, |
| $22,23,23,18,19,20$ | 13, 8, 9, 10, 15, 20 | $8,9,14,19,24$ |
|  |  |  |
| Задача 11.16 | Задача 11.17 | Задача 11.18 |
| $2,7,8,9,10,10,9,8,21$, | $2,11,2,3,8,5,4,3,8,13$, | 2, 1, 6, 5, 10, 11, 8, 9, 14, |
| $17,12,11,6,7,8,13,14,19$, | 11, 16, 18, 16, 17, 17, 18, 23, | 15, 12, 13, 14, 13, 18, 21, 22, |
| 20, 25, 22, 23, 24 | 18, 13, 14, 15, 20 | 18, 23, 25, 22, 23, 24 |
|  | ${ }_{12} 1.3$ |  |
| Задача 11.19 | Задача 11.20 | Задача 11.21 |
| $1,6,11,12,8,15,10,5,4$, | 8, 4, 9, 1, 2, 7, 9, 18, 14, 18, | $6,7,5,4,3,8,11,22,14$, |
| $3,8,13,11,12,13,18,24$, | 23, 19, 16, 11, 12, 7, 8, 9, 14, | $15,14,9,8,21,16,11,6,7$, |
| $25,22,17,18,23,24$ | 19, 24, 23, 24 | 8, 13, 18, 23, 24 |
|  |  |  |
| Задача 11.22 | Задача 11.23 | Задача 11.24 |
| $6,7,4,3,8,7,12,8,13,15$, | $2,7,4,3,8,7,12,13,9,14$, | $6,3,8,4,9,7,12,13,14$, |
| $12,13,14,15,20,19,16,17$, | 12, 17, 18, 14, 19, 21, 22, 19, | $15,16,17,13,18,20,18,17$, |
| $18,23,18,19,24$ | 19, 24, 22, 23, 24 | $16,21,25,22,23,24$ |
|  |  |  |
| Задача 11.25 | Задача 11.26 | Задача 11.27 |
| $2,3,2,7,10,7,12,8,13$, | $2,7,18,13,8,3,21,16,11$, | $2,3,8,5,10,15,14,20,16$, |
| $15,12,13,14,16,17,17,18$, | 12, 7, 2, 3, 4, 24, 19, 14, 9, | 11, 17, 18, 17, 12, 11, 6, 7, 8, |
| 19, 24, 19, 14, 15, 20 | $4,5,10,15,20$ | $9,14,15,20,25$ |
|  |  |  |


| Задача 11.28 | Задача 11.29 | Задача 11.30 |
| :---: | :---: | :---: |
| $6,7,3,14,5,4,3,2,7,12$, | $2,3,4,5,10,11,12,7,8,8$, | $6,2,7,5,10,11,13,8,10$, |
| $16,12,17,15,20,21,16,17$, | 9, 10, 15, 15, 20, 16, 17, 18, | 9, 8, 7, 6, 11, 16, 23, 22, 21, |
| 18, 18, 19, 19, 20 | $23,18,19,20,25$ | $16,17,18,19,20$ |
|  |  |  |

## Раскодировка Прюфера

|  | $r$ | $d$ | Центр | Кодировка(10) |
| ---: | ---: | ---: | ---: | ---: |
| 1 | 5 | 10 | 18 | 197666973806880 |
| 2 | 6 | 12 | 18 | 254809790142480 |
| 3 | 6 | 12 | 17 | 264859732085184 |
| 4 | 6 | 11 | 8,9 | 226970994534192 |
| 5 | 6 | 12 | 13 | 201140886171840 |
| 6 | 7 | 13 | 15,20 | 197280191870976 |
| 7 | 6 | 12 | 15 | 197346482479872 |
| 8 | 6 | 12 | 13 | 201140886171840 |
| 9 | 7 | 13 | 17,18 | 227583809519760 |
| 10 | 6 | 12 | 8 | 273533003430000 |
| 11 | 6 | 11 | 8,13 | 226970909499840 |
| 12 | 7 | 13 | 10,15 | 280405469135160 |
| 13 | 6 | 12 | 23 | 210092384422944 |
| 14 | 6 | 11 | 8,13 | 197669121221088 |
| 15 | 5 | 10 | 8 | 254046055963704 |
| 16 | 8 | 16 | 14 | 228163378477056 |
| 17 | 5 | 10 | 13 | 244331091404160 |
| 18 | 6 | 11 | 12,13 | 281203815876480 |
| 19 | 6 | 12 | 8 | 273365546769792 |
| 20 | 6 | 12 | 9 | 250082453766384 |
| 21 | 6 | 12 | 7 | 201142950578112 |
| 22 | 6 | 12 | 15 | 197346482479872 |
| 23 | 7 | 14 | 24 | 223724733137472 |
| 24 | 8 | 15 | 16,21 | 228146519358480 |
| 25 | 6 | 11 | 13,14 | 238281510340800 |
| 26 | 7 | 13 | 2,3 | 246024052149216 |
| 27 | 7 | 13 | 7,8 | 277679240088960 |
| 28 | 7 | 13 | 12,17 | 273283896296592 |
| 29 | 7 | 13 | 10,15 | 280405469135160 |
| 30 | 7 | 13 | 6,11 | 226220348340504 |

