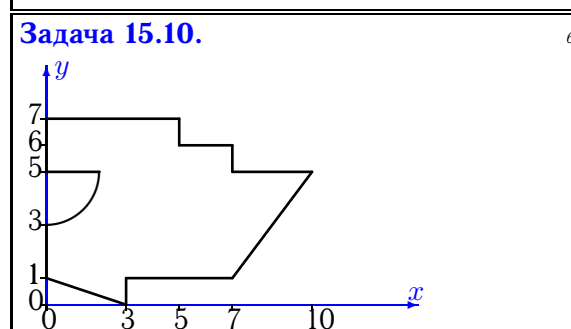
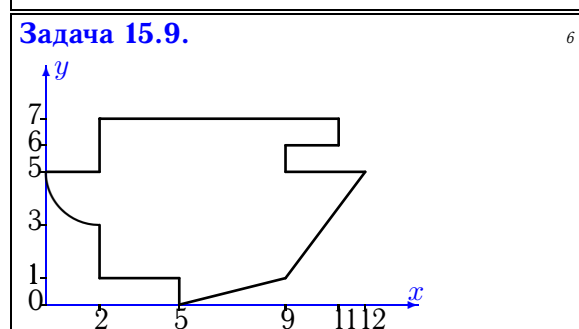
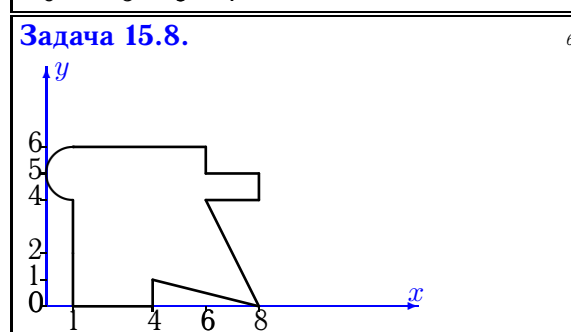
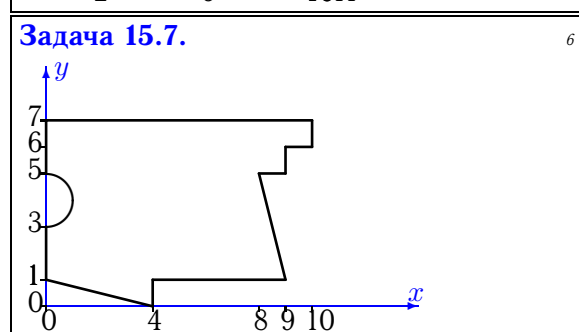
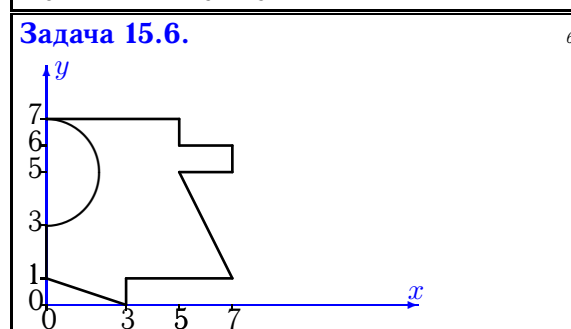
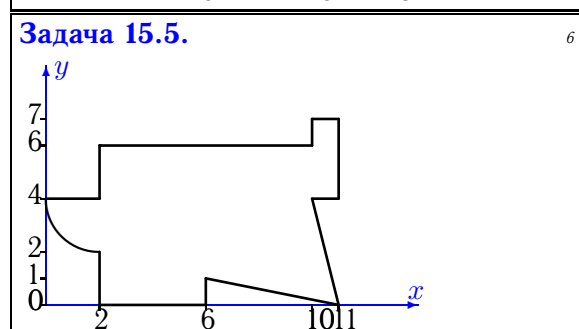
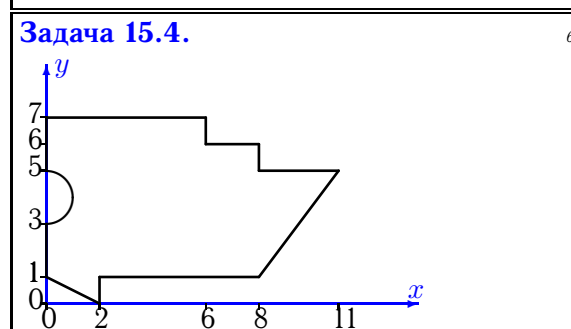
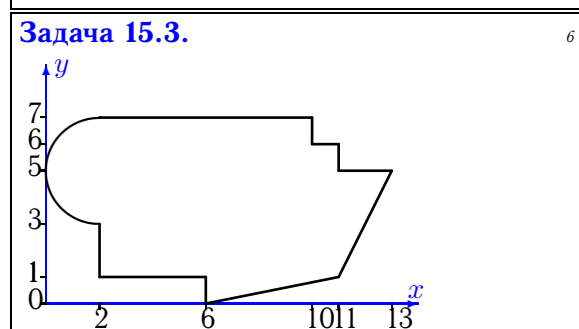
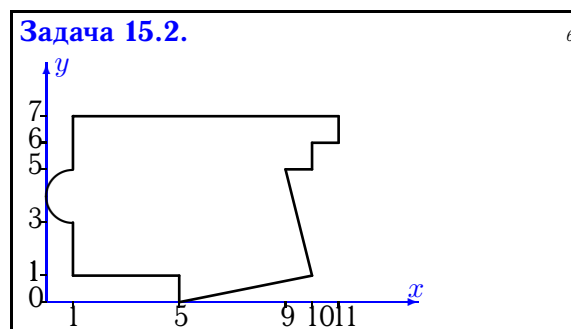
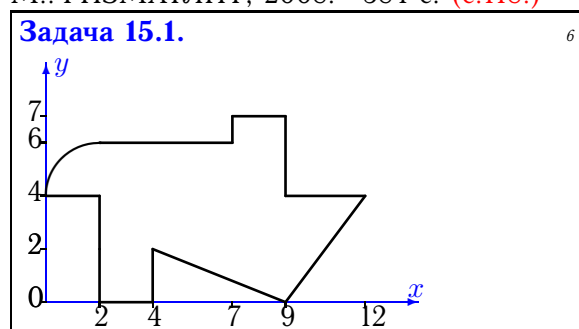


Геометрические характеристики плоской фигуры

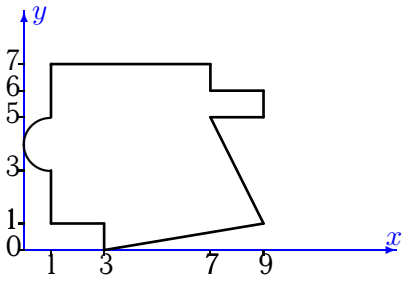
Найти главные моменты инерции (в см^4) плоской фигуры. Отметки на осях даны в сантиметрах. Криволинейный участок контура является дугой половины или четверти окружности.

Кирсанов М.Н. **Решебник. Теоретическая механика**/Под ред. А. И. Кириллова.– М.: ФИЗМАТЛИТ, 2008.– 384 с. (с.118.)



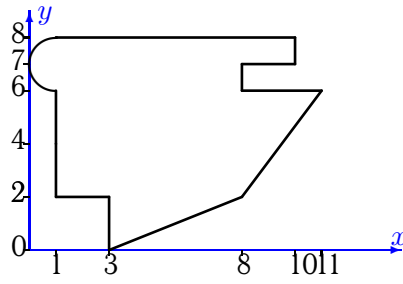
Задача 15.11.

6



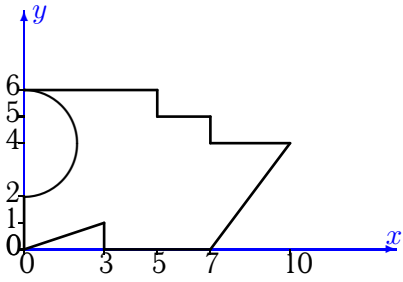
Задача 15.12.

6



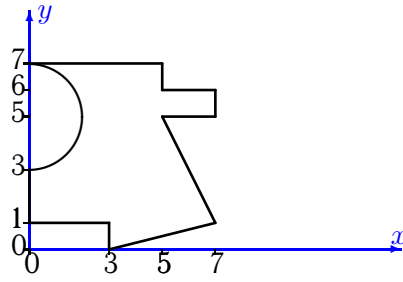
Задача 15.13.

6



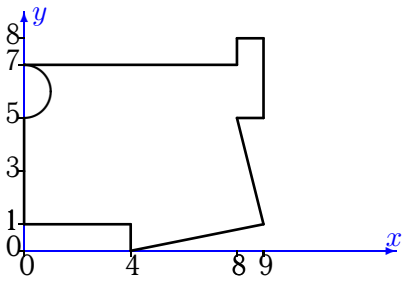
Задача 15.14.

6



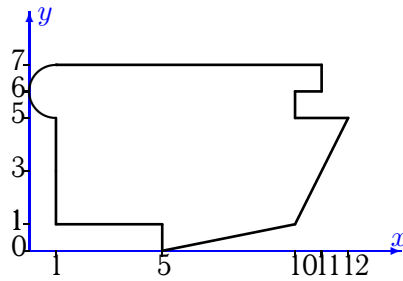
Задача 15.15.

6



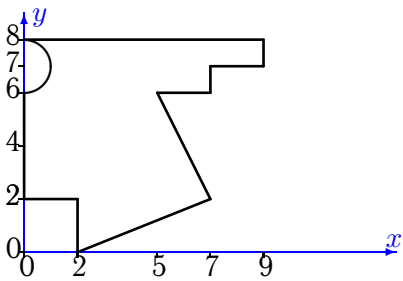
Задача 15.16.

6



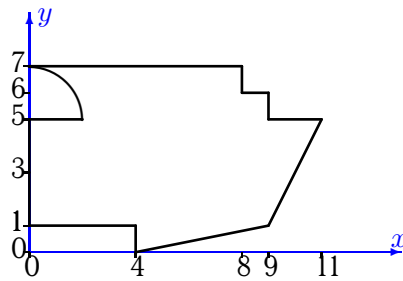
Задача 15.17.

6



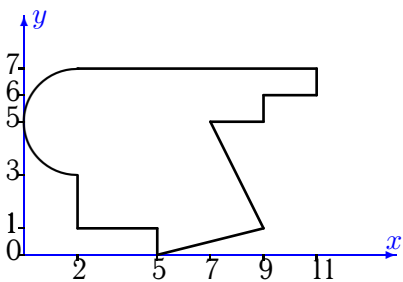
Задача 15.18.

6



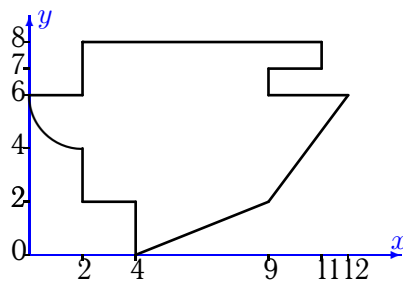
Задача 15.19.

6



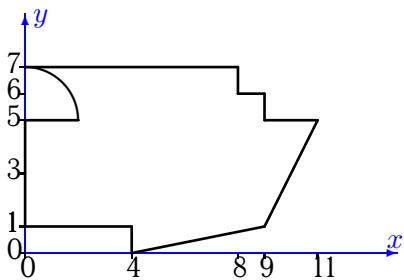
Задача 15.20.

6



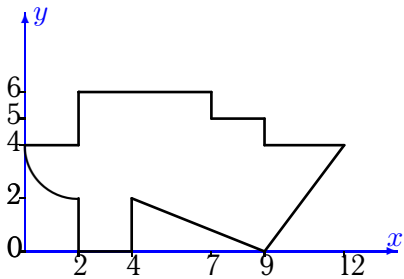
Задача 15.21.

6



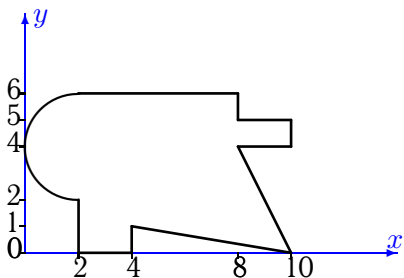
Задача 15.23.

6



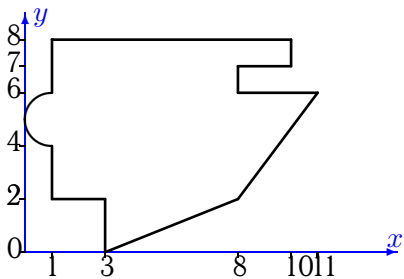
Задача 15.25.

6



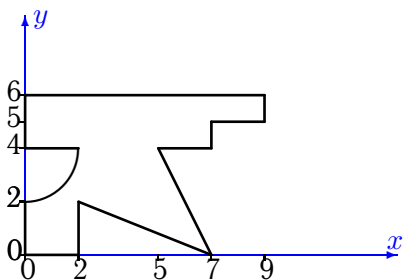
Задача 15.27.

6



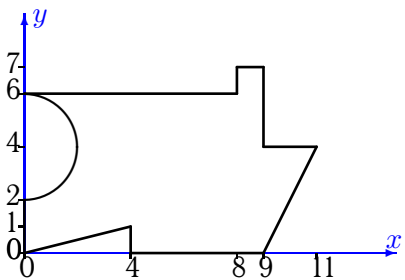
Задача 15.29.

6



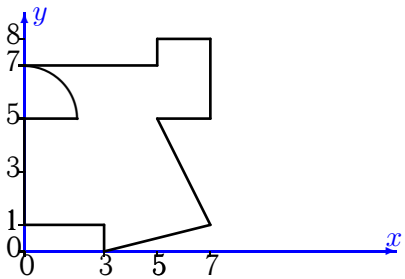
Задача 15.22.

6



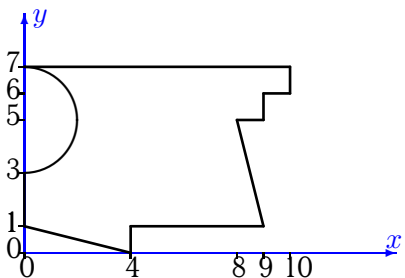
Задача 15.24.

6



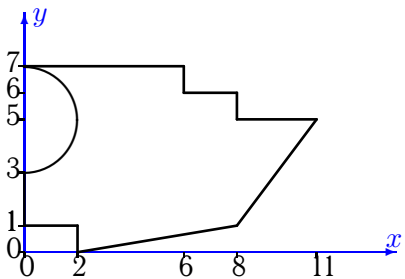
Задача 15.26.

6



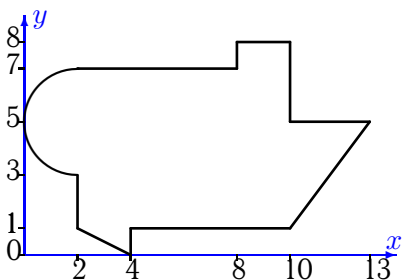
Задача 15.28.

6



Задача 15.30.

6



Геометрические характеристики плоской фигуры

| № | A | x_c | y_c | I_x | I_y | I_{xy} | I_{max} | I_{min} | α |
|----|--------|-------|-------|---------|---------|----------|-----------|-----------|----------|
| 1 | 48.142 | 5.864 | 3.467 | 129.457 | 356.011 | -19.334 | 357.650 | 127.819 | 4.843 |
| 2 | 57.071 | 5.357 | 3.909 | 194.175 | 398.662 | 5.387 | 398.804 | 194.033 | -1.508 |
| 3 | 65.783 | 6.287 | 3.911 | 199.624 | 641.486 | -60.237 | 649.551 | 191.559 | 7.626 |
| 4 | 51.429 | 4.524 | 3.799 | 146.031 | 363.352 | -8.752 | 363.704 | 145.679 | 2.302 |
| 5 | 53.642 | 6.052 | 3.211 | 152.983 | 418.848 | 27.392 | 421.641 | 150.190 | -5.822 |
| 6 | 31.217 | 3.438 | 3.521 | 106.357 | 83.421 | 15.277 | 113.992 | 75.786 | -63.447 |
| 7 | 53.429 | 4.489 | 3.934 | 188.045 | 337.042 | 27.461 | 341.942 | 183.145 | -10.117 |
| 8 | 35.571 | 3.821 | 3.135 | 101.026 | 130.053 | -12.229 | 134.518 | 96.561 | 20.059 |
| 9 | 55.142 | 5.935 | 3.942 | 167.765 | 390.176 | 9.227 | 390.559 | 167.383 | -2.372 |
| 10 | 44.358 | 4.133 | 3.719 | 131.625 | 246.225 | -3.233 | 246.316 | 131.534 | 1.615 |
| 11 | 46.571 | 4.436 | 3.707 | 157.215 | 214.025 | -16.880 | 218.662 | 152.578 | 15.361 |
| 12 | 56.571 | 5.042 | 4.784 | 217.048 | 351.925 | 8.114 | 352.411 | 216.562 | -3.430 |
| 13 | 38.217 | 4.570 | 2.757 | 93.762 | 189.001 | 0.970 | 189.011 | 93.752 | -0.583 |
| 14 | 31.717 | 3.563 | 3.476 | 110.395 | 82.456 | 4.534 | 111.112 | 81.739 | -81.009 |
| 15 | 53.929 | 4.592 | 3.864 | 192.584 | 325.963 | 21.104 | 329.222 | 189.324 | -8.780 |
| 16 | 63.071 | 5.831 | 3.936 | 206.669 | 535.435 | -17.015 | 536.313 | 205.791 | 2.955 |
| 17 | 43.429 | 3.577 | 4.651 | 191.045 | 171.526 | 36.324 | 218.897 | 143.674 | -52.520 |
| 18 | 56.358 | 5.051 | 3.681 | 170.234 | 403.089 | 6.000 | 403.243 | 170.079 | -1.475 |
| 19 | 48.283 | 4.920 | 4.123 | 168.833 | 287.192 | -2.042 | 287.227 | 168.798 | 0.988 |
| 20 | 58.142 | 5.899 | 4.744 | 210.153 | 395.308 | 17.426 | 396.934 | 208.527 | -5.330 |
| 21 | 56.358 | 5.051 | 3.681 | 170.234 | 403.089 | 6.000 | 403.243 | 170.079 | -1.475 |
| 22 | 50.717 | 5.511 | 3.024 | 151.404 | 342.394 | 19.711 | 344.407 | 149.391 | -5.831 |
| 23 | 44.142 | 5.670 | 3.116 | 91.351 | 334.767 | -19.370 | 336.299 | 89.819 | 4.521 |
| 24 | 38.858 | 3.594 | 3.893 | 156.942 | 131.529 | 32.886 | 179.491 | 108.980 | -55.563 |
| 25 | 45.283 | 4.900 | 3.234 | 115.911 | 280.715 | -27.957 | 285.328 | 111.297 | 9.371 |
| 26 | 48.717 | 4.827 | 3.799 | 174.136 | 272.516 | 53.642 | 296.108 | 150.544 | -23.739 |
| 27 | 56.571 | 5.042 | 4.729 | 209.237 | 351.925 | 22.146 | 355.283 | 205.878 | -8.622 |
| 28 | 48.717 | 4.899 | 3.522 | 147.139 | 292.807 | 18.232 | 295.055 | 144.892 | -7.027 |
| 29 | 31.858 | 3.662 | 3.550 | 95.743 | 148.787 | 28.656 | 161.311 | 83.219 | -23.607 |
| 30 | 63.283 | 6.045 | 4.126 | 197.401 | 584.351 | -8.993 | 584.560 | 197.192 | 1.331 |