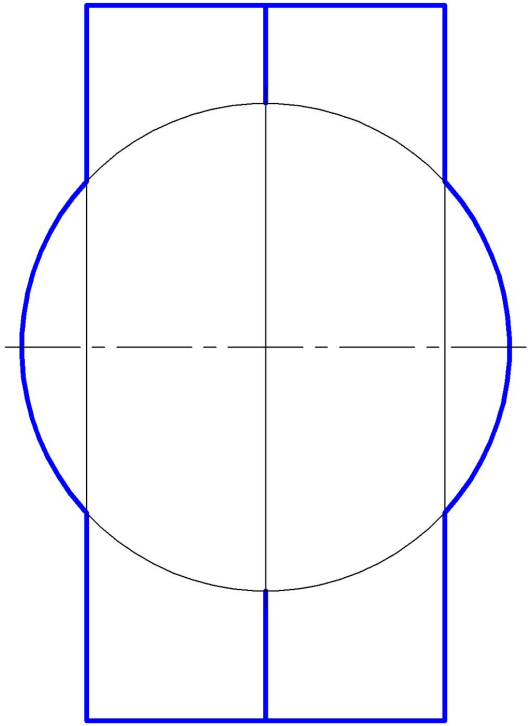
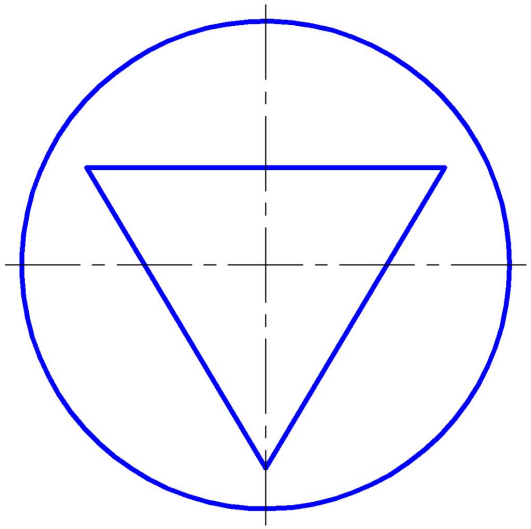
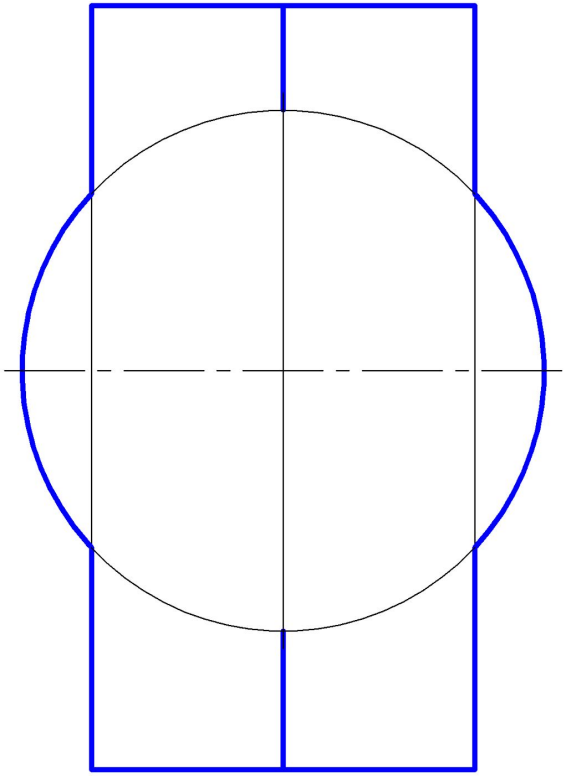
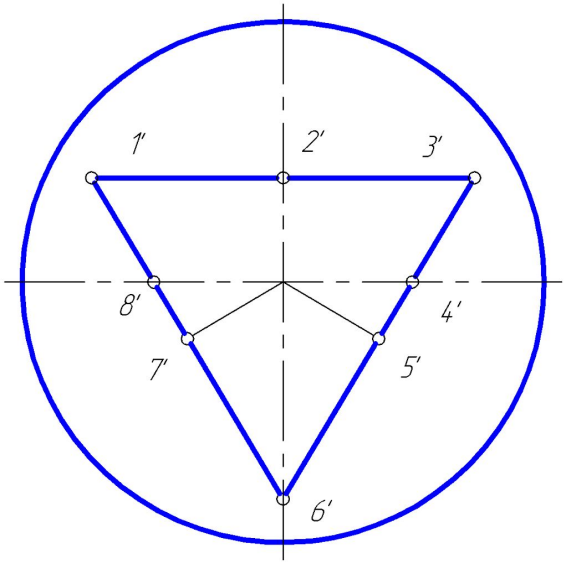
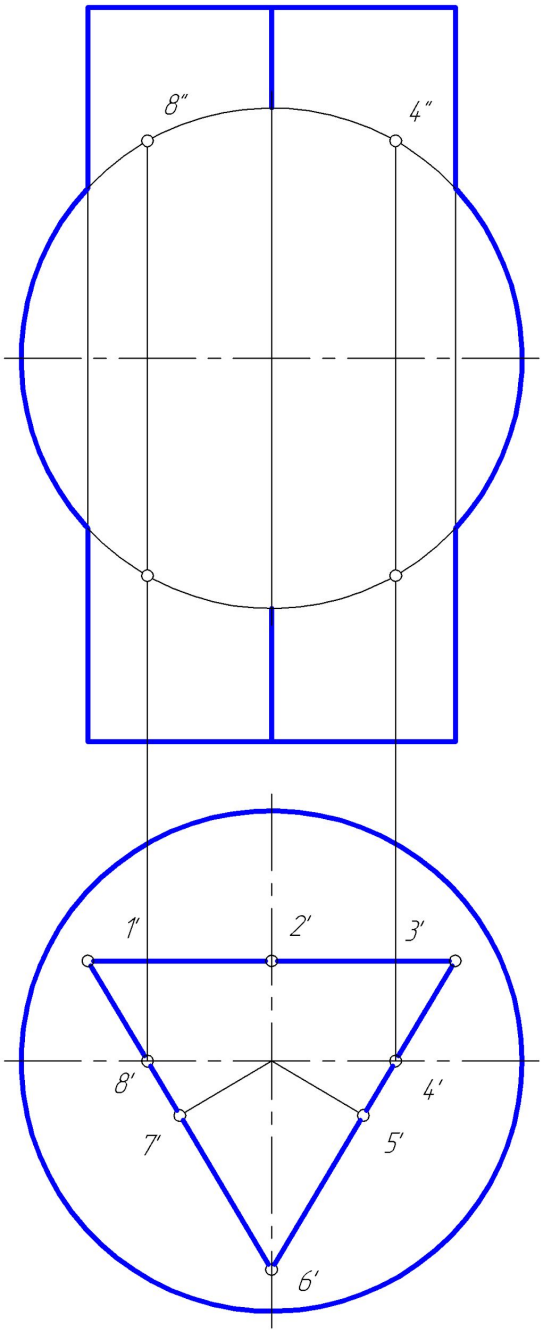
Пересечение призмы и сферы

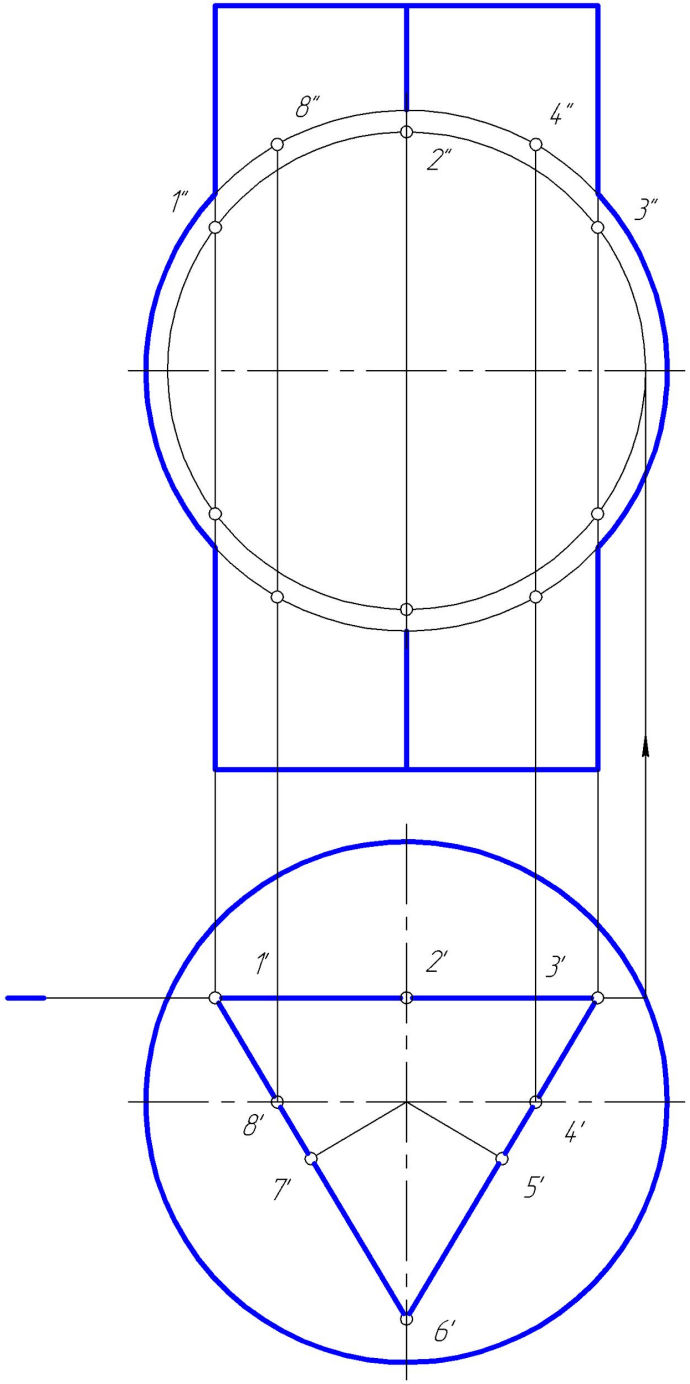


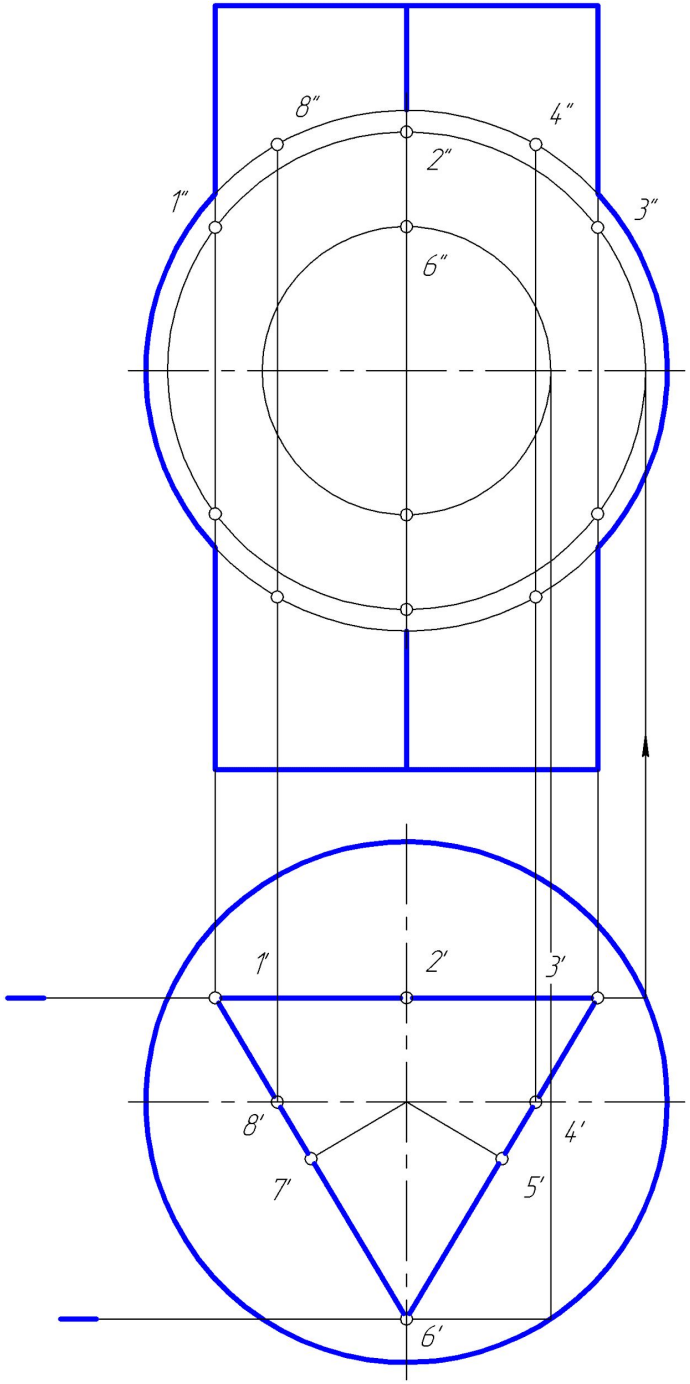


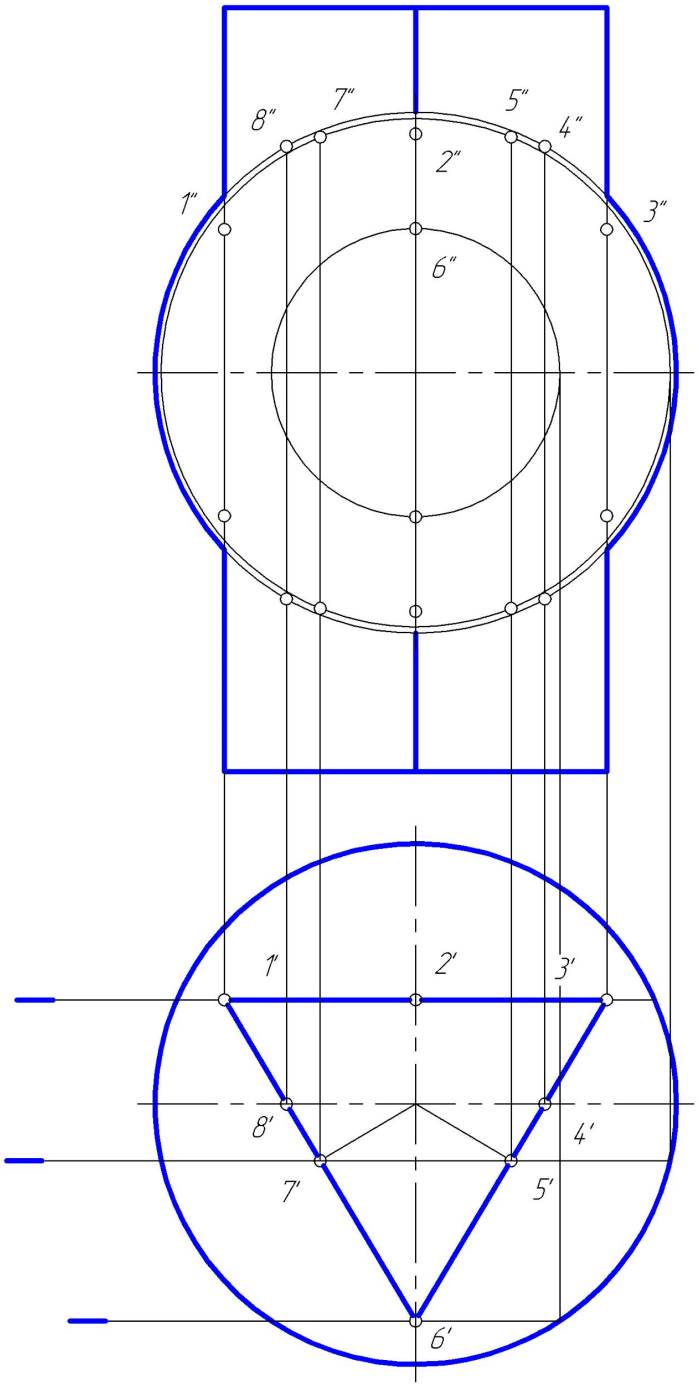


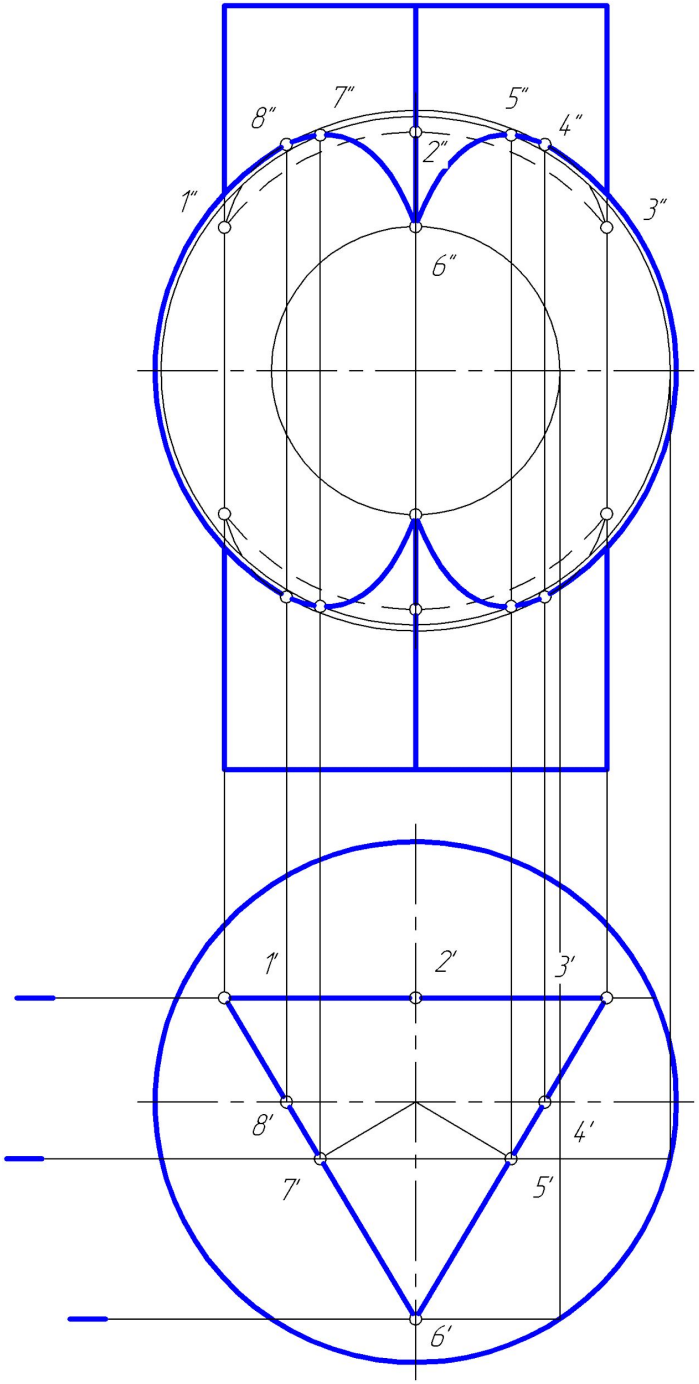

1′
2′
3′
8′
4′
7′
5′
6′


8″
4″
1′
2′
3′
8′
4′
7′
5′
6′

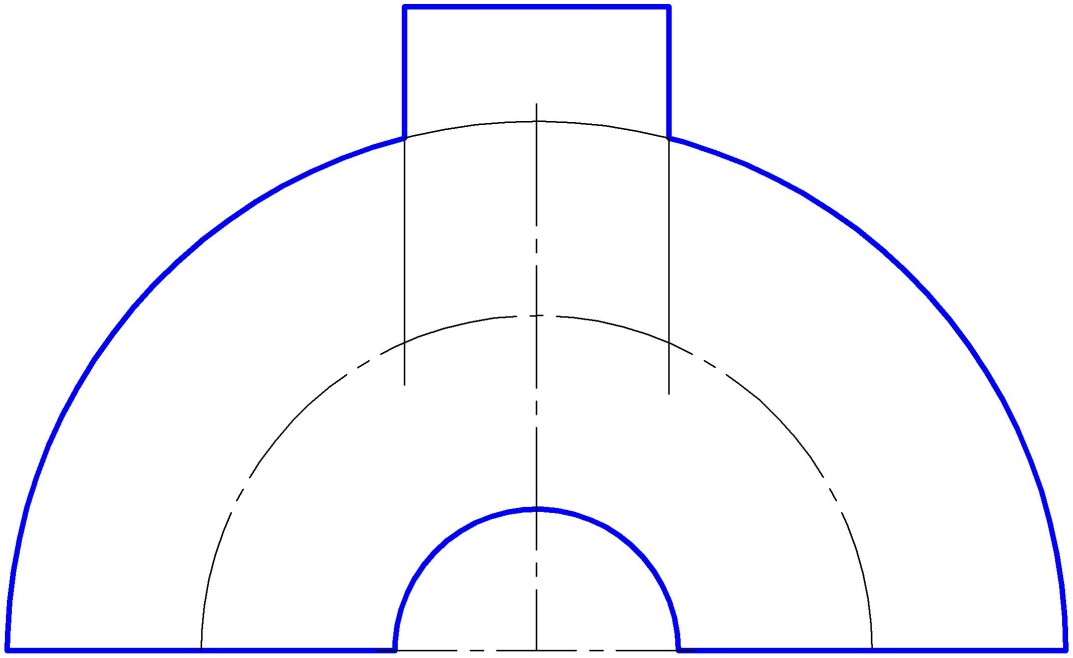

8″
4″
2″
1″
3″
1′
2′
3′
8′
4′
7′
5′
6′

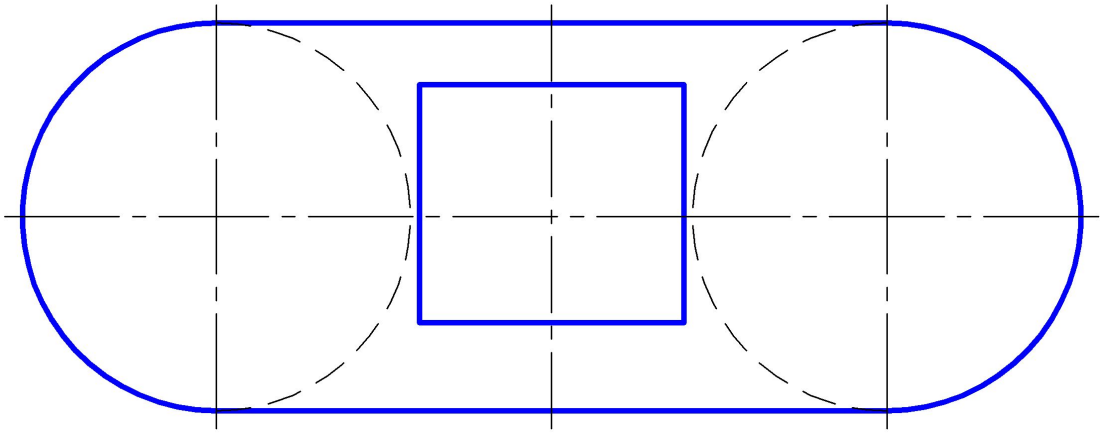

8″
4″
2″
1″
3″
6″
1′
2′
3′
8′
4′
7′
5′
6′

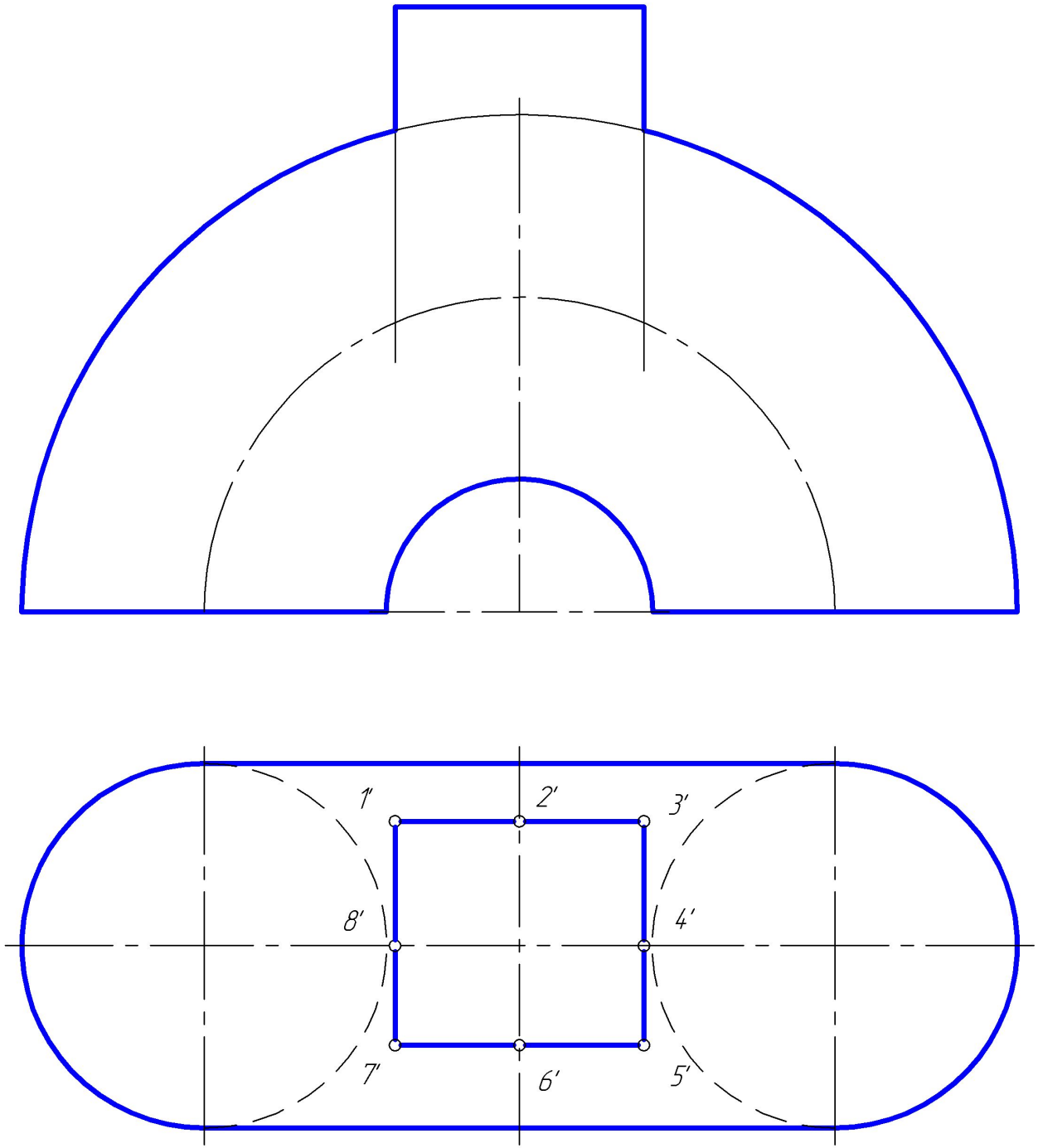

8″
7″
5″
4″
2″
1″
3″
6″
1′
2′
3′
8′
4′
7′
5′
6′

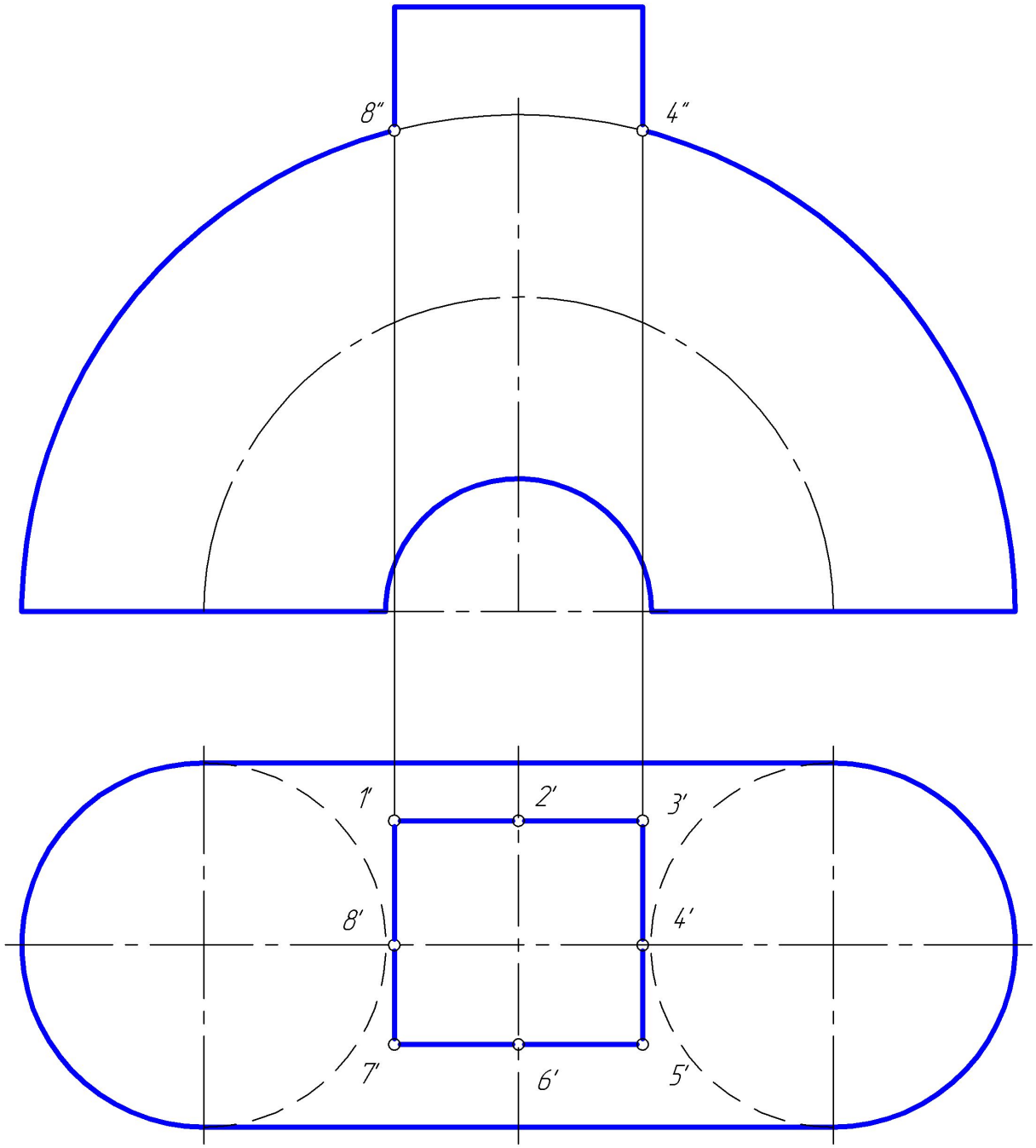

8″
7″
5″
4″
2″
1″
3″
6″
1′
2′
3′
8′
4′
7′
5′
6′

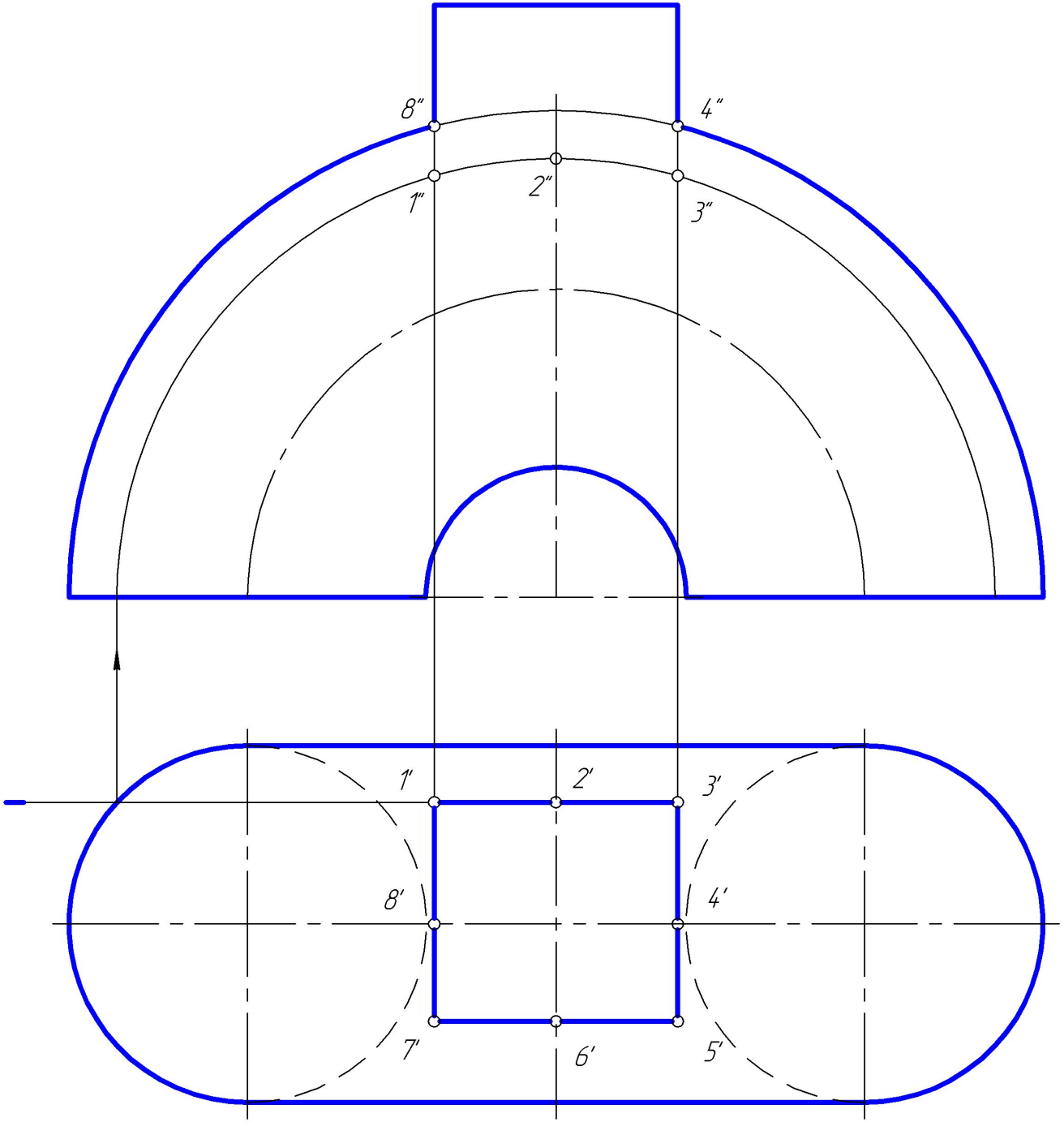
Пересечение призмы и тора

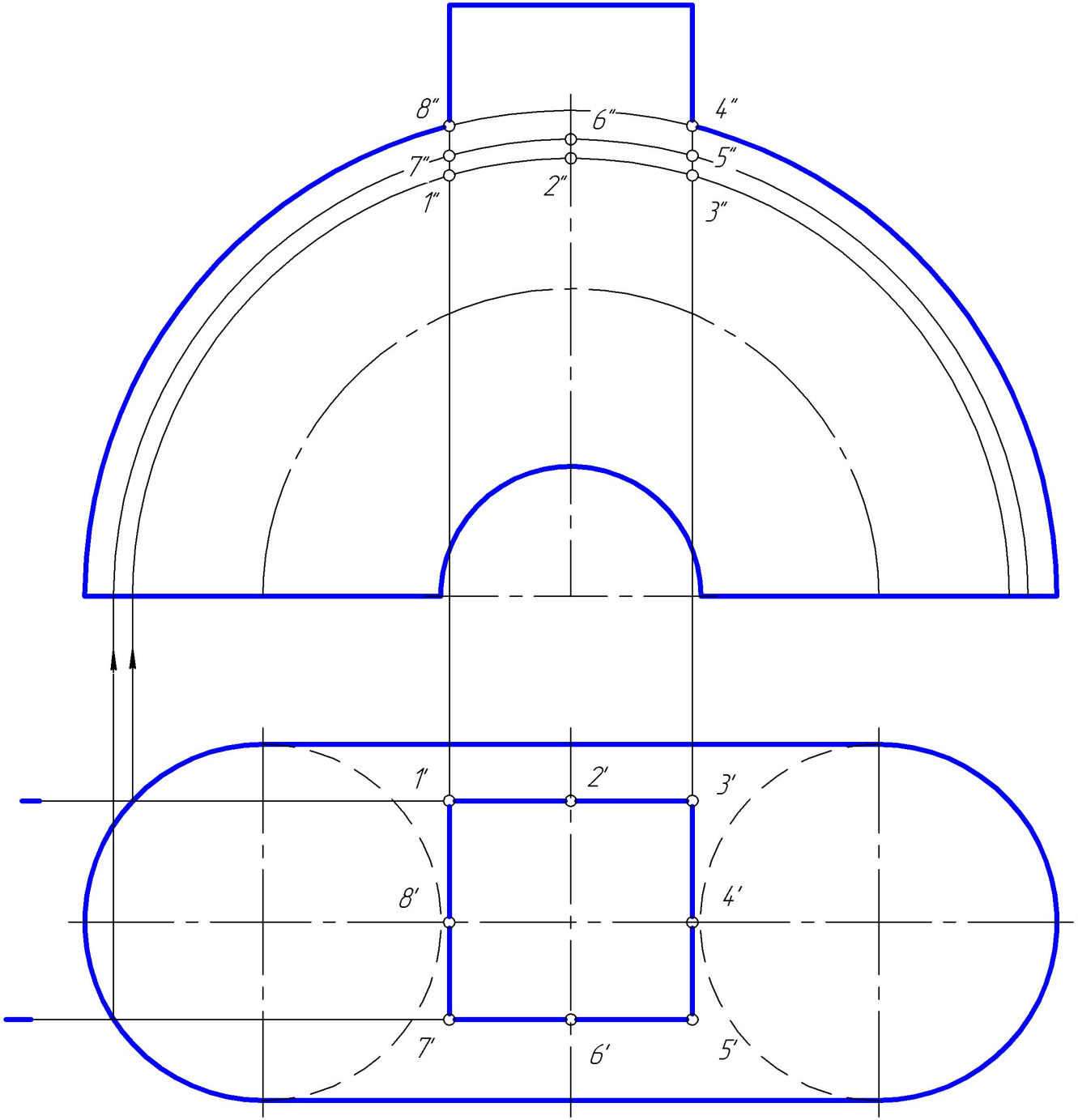


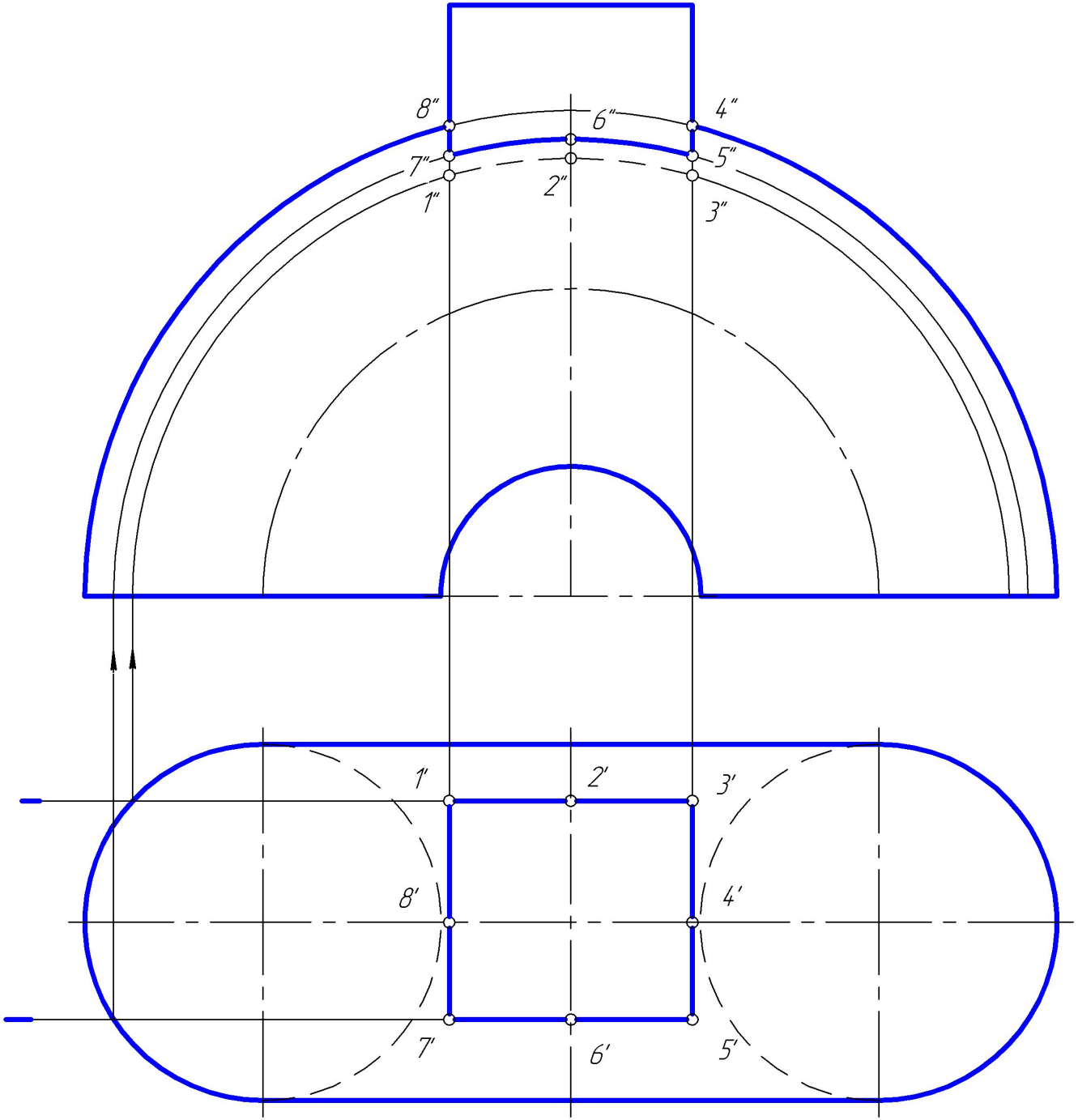



1′
2′
3′
8′
4′
7′
6′
5′

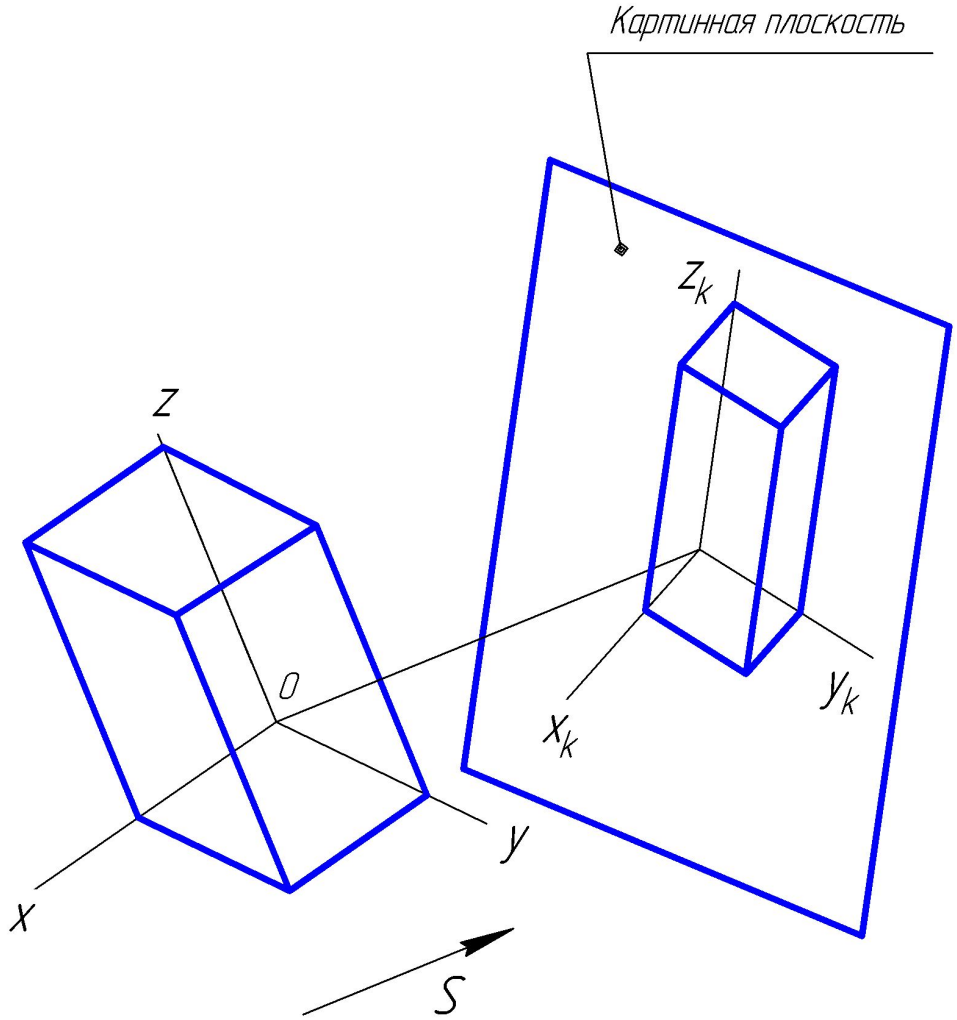

8″
4″
1′
2′
3′
8′
4′
7′
6′
5′


8″
4″
1″
2″
3″
1′
2′
3′
8′
4′
7′
6′
5′


8″
6″
4″
7″
5″
2″
1″
3″
1′
2′
3′
8′
4′
7′
6′
5′


8″
6″
4″
7″
5″
2″
1″
3″
1′
2′
3′
8′
4′
7′
6′
5′

Аксонометрические проекции



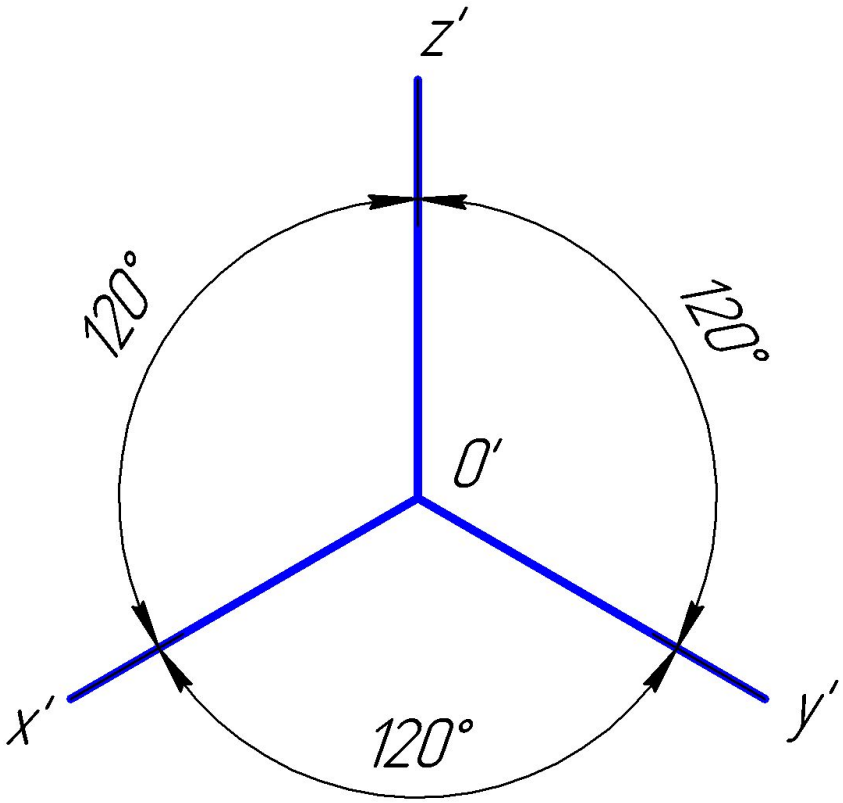
Теорема Польке

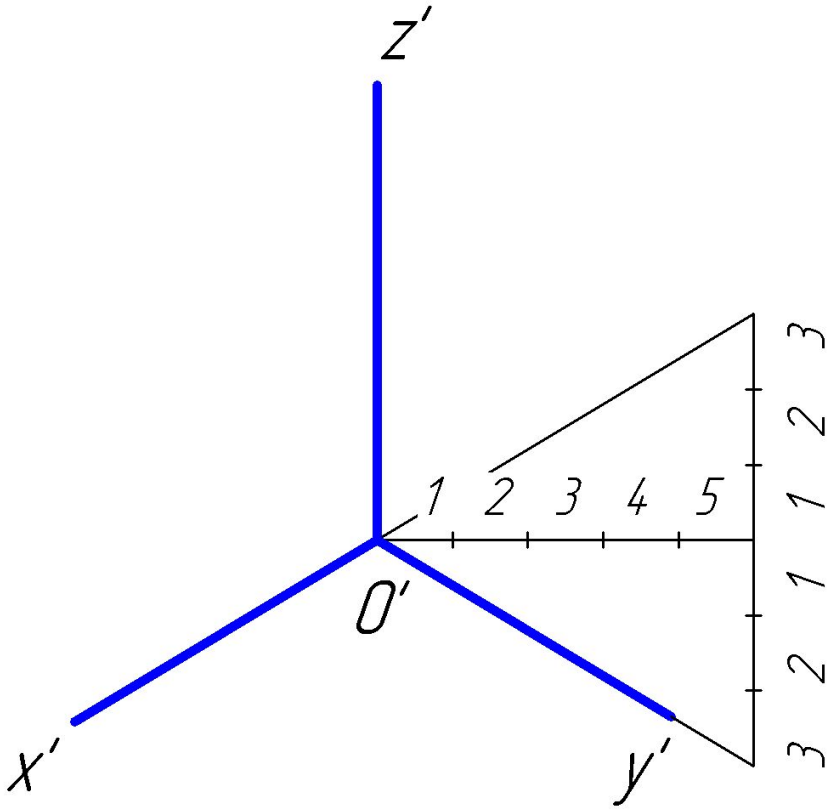
- Любые три отрезка, выходящие из одной точки на плоскости, могут быть приняты за параллельные проекции трех равных и взаимно перпендикулярных отрезков в пространстве.
- $k_x \neq k_y \neq k_z$ – триметрическая проекция
- $k_x = k_y$ – диметрическая проекция
- $k_x = k_y = k_z$ – изометрическая проекция

Стандартные аксонометрические проекции

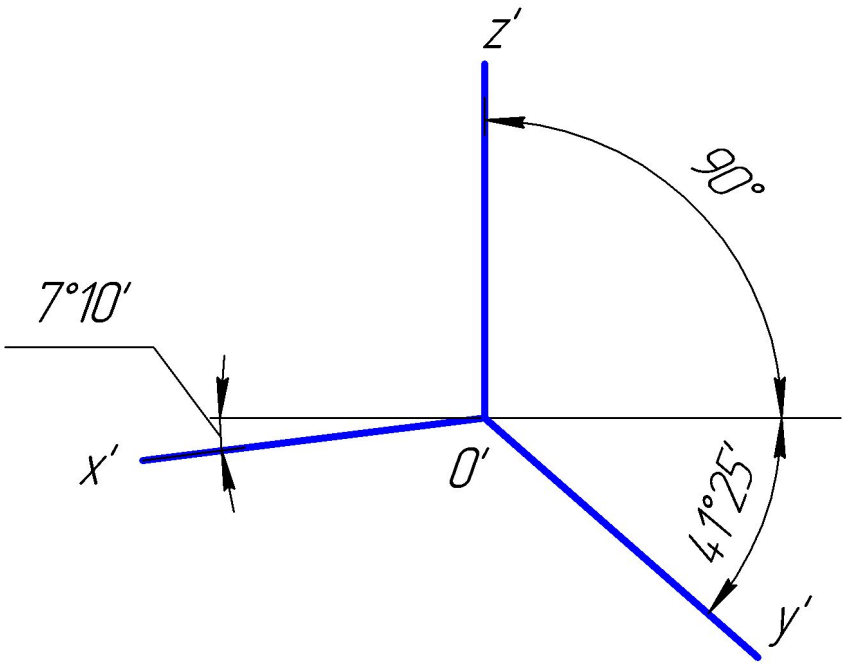
- Косоугольная фронтальная изометрическая проекция
- Косоугольная горизонтальная изометрическая проекция
- Косоугольная фронтальная диметрическая проекция
- Прямоугольная изометрическая проекция
- Прямоугольная диметрическая проекция

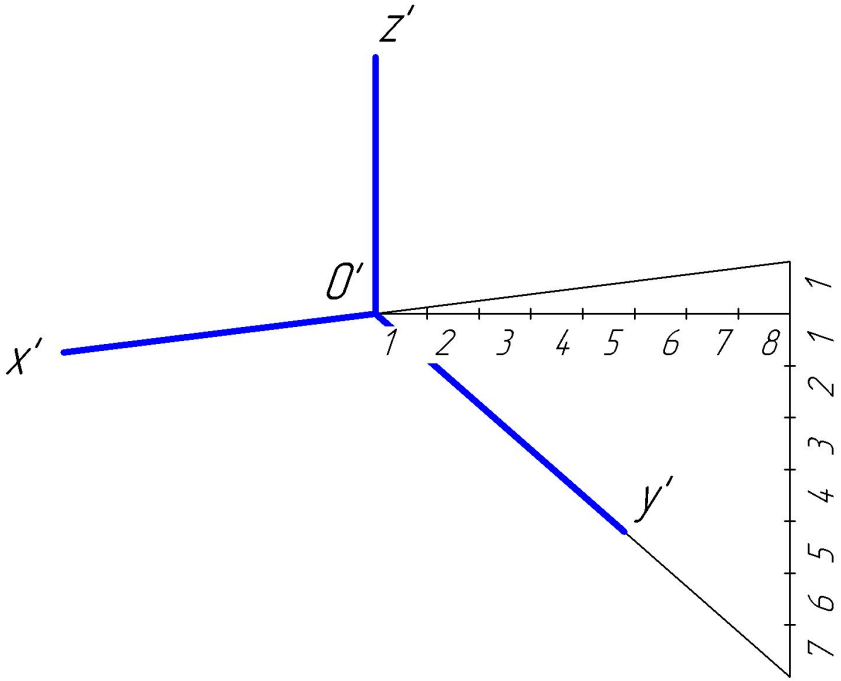
Расположение осей прямоугольной изометрической проекции



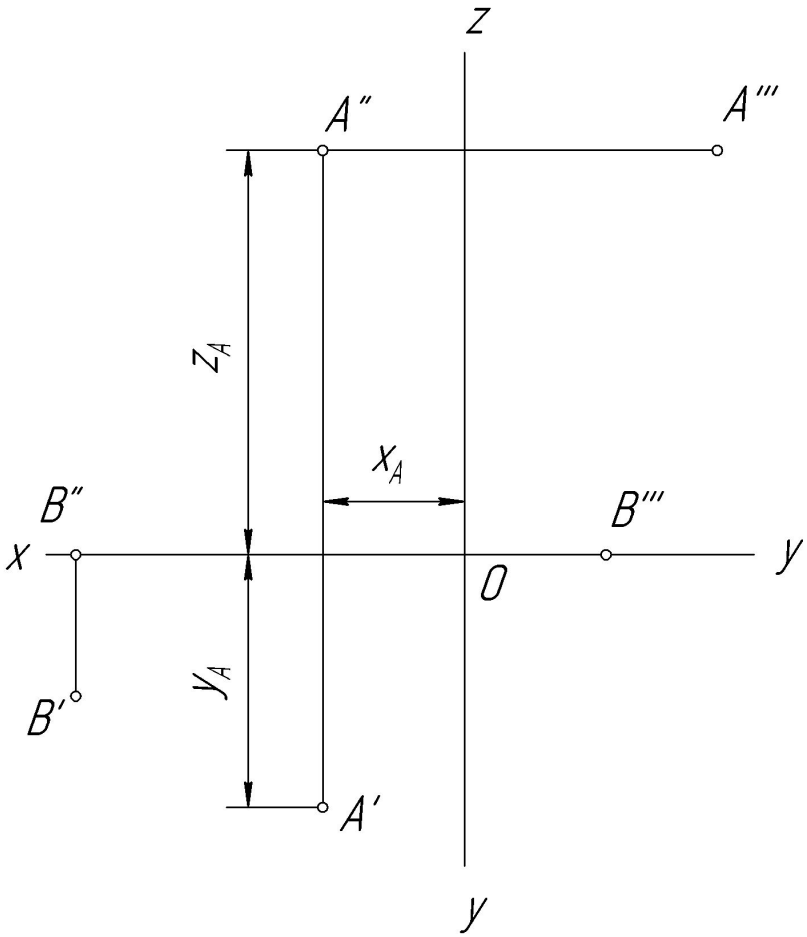


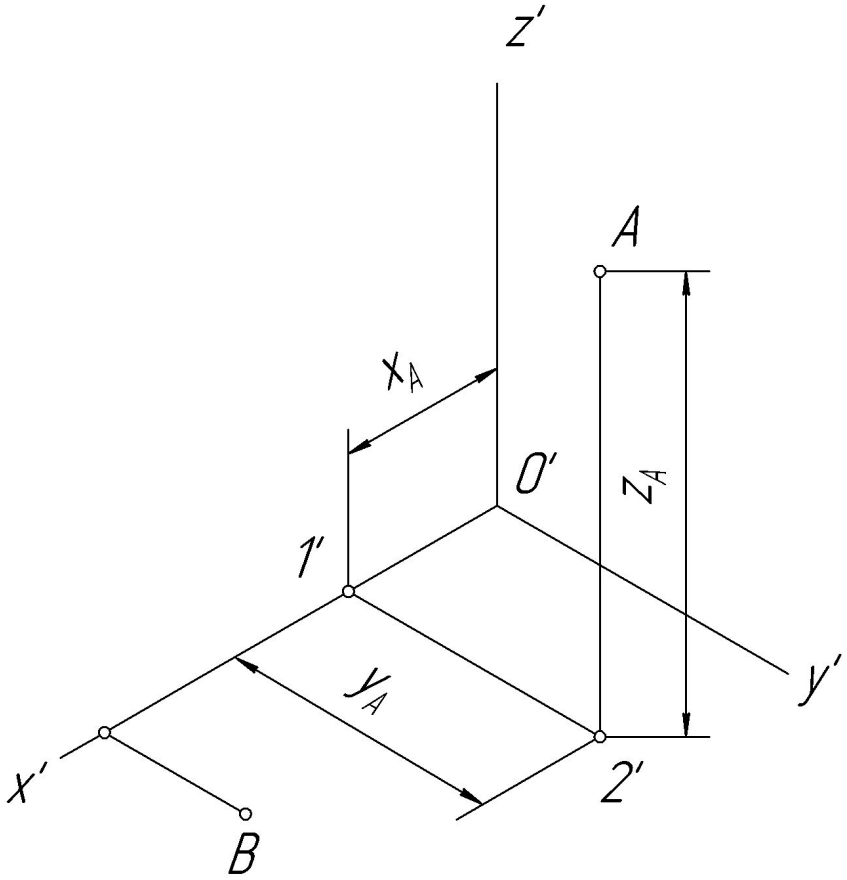
Расположение осей прямоугольной диметрической проекции



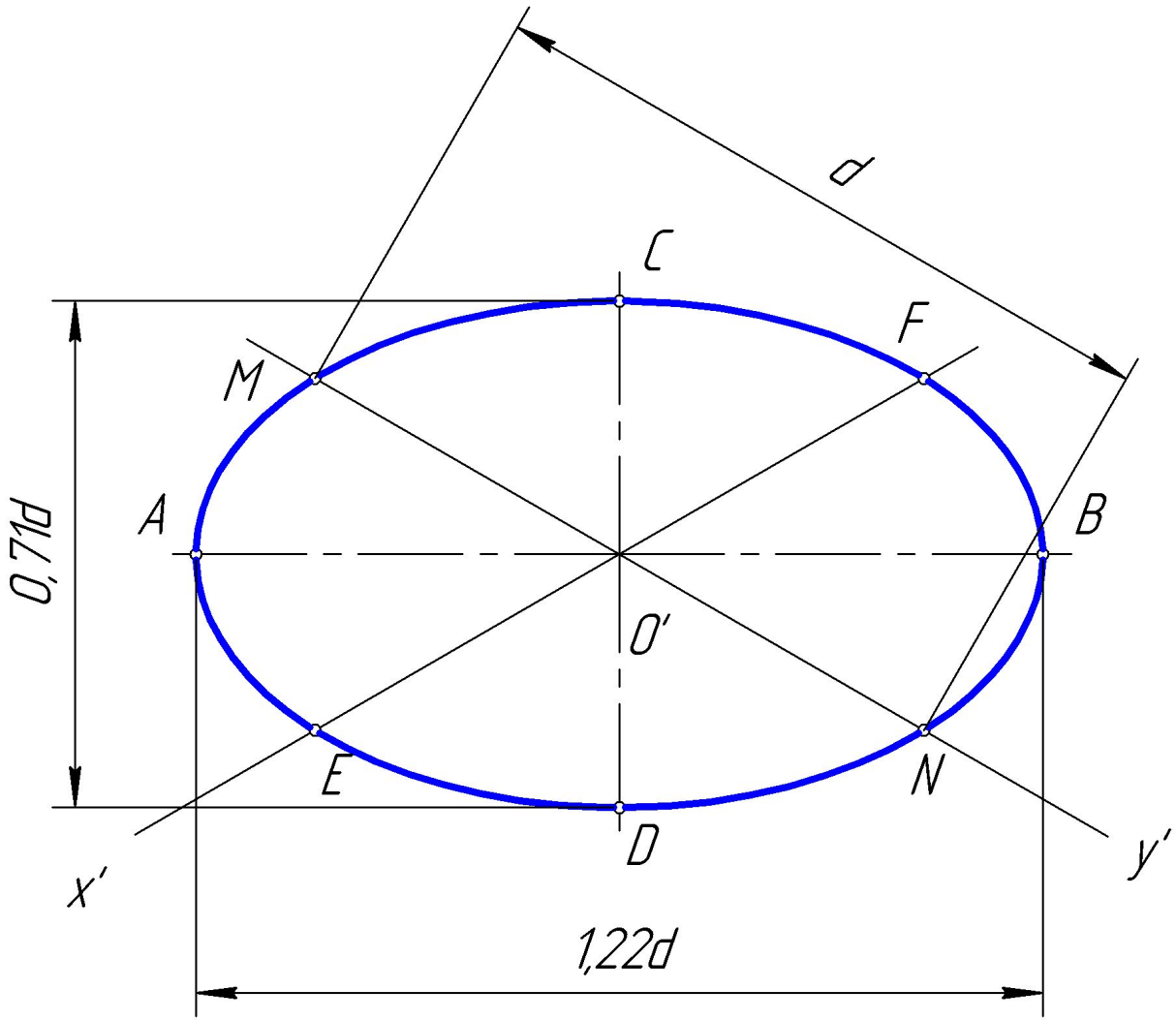


Построение точки в изометрической проекции

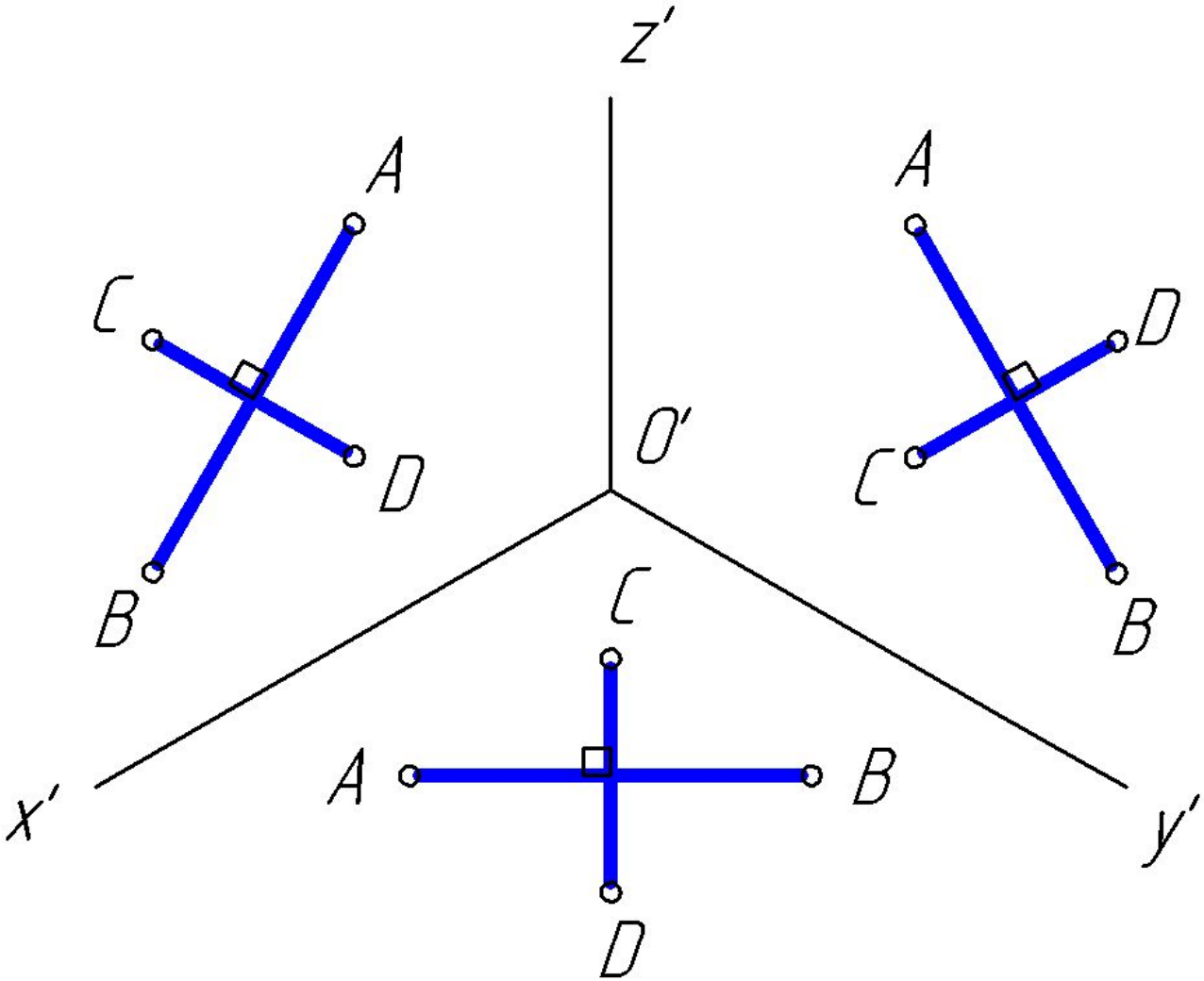




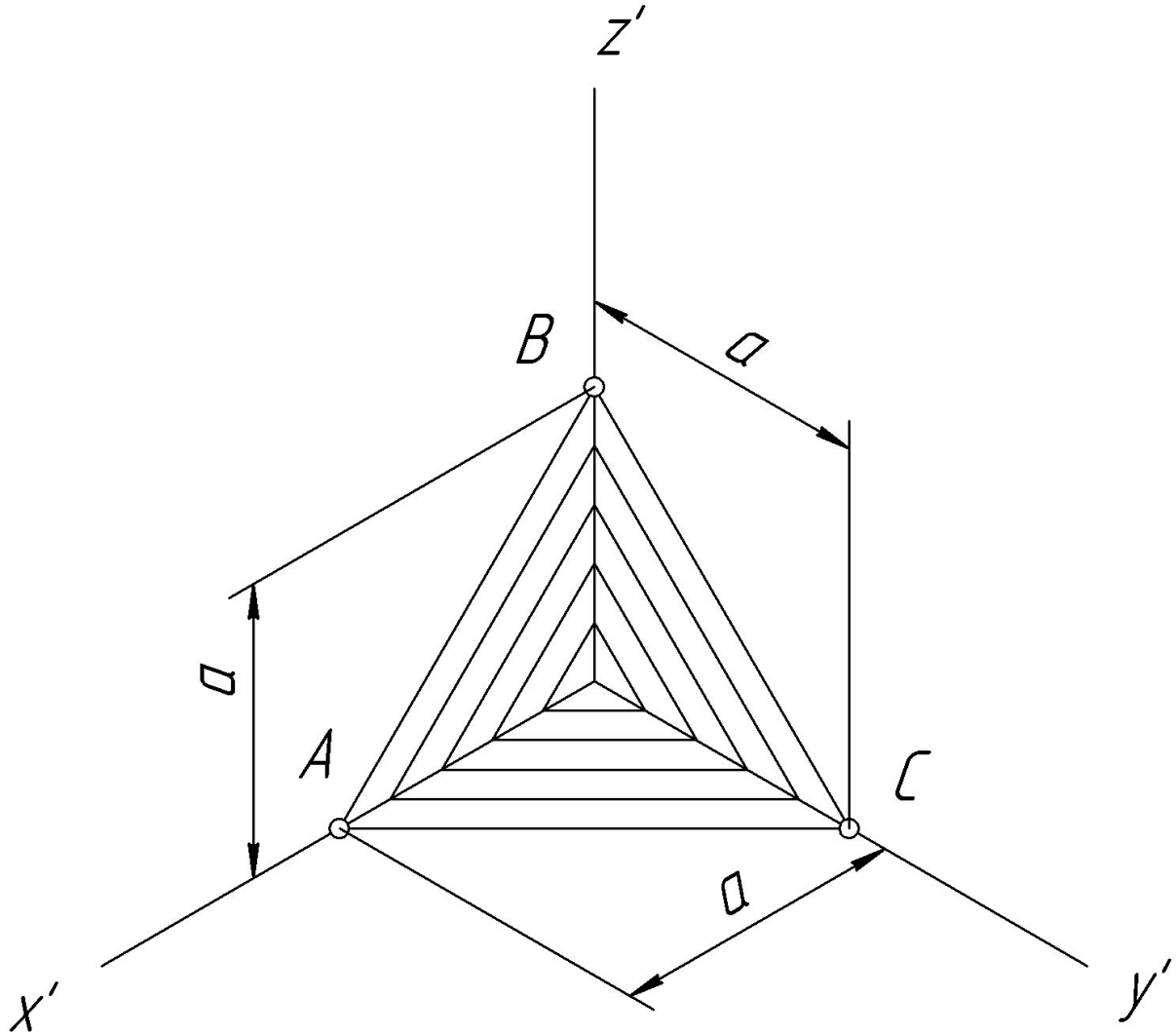
Построение окружности в прямоугольной изометрической проекции

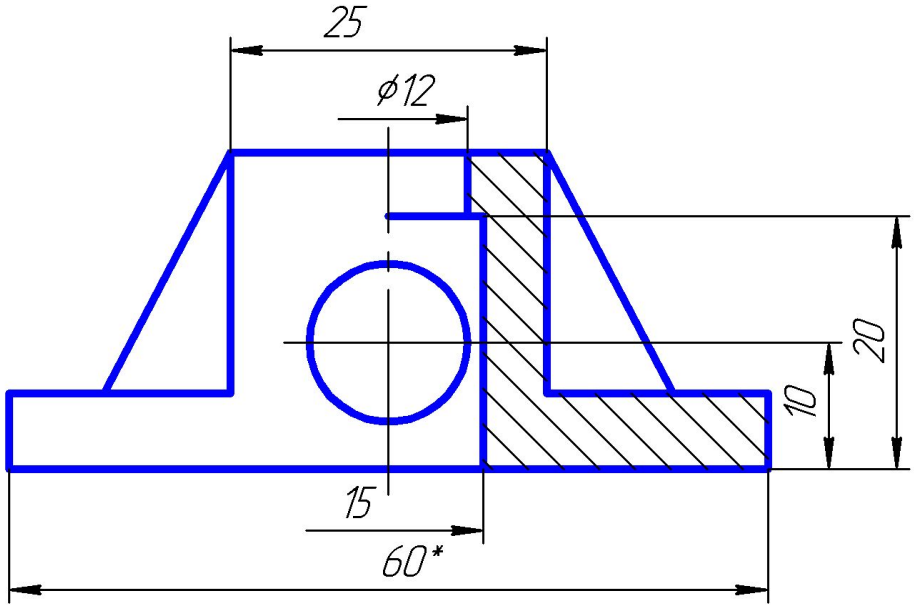


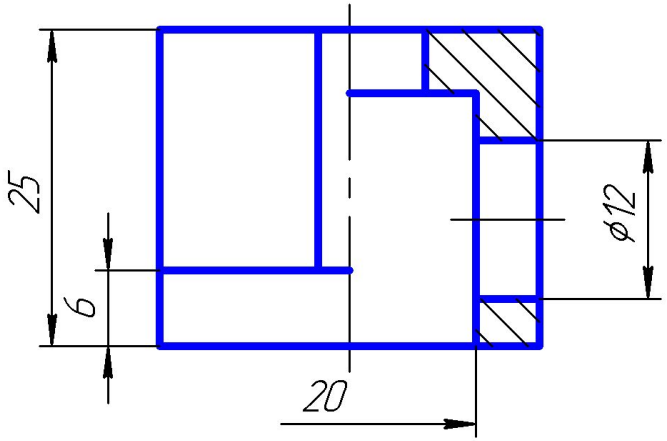
Расположение осей окружности в прямоугольной изометрической проекции

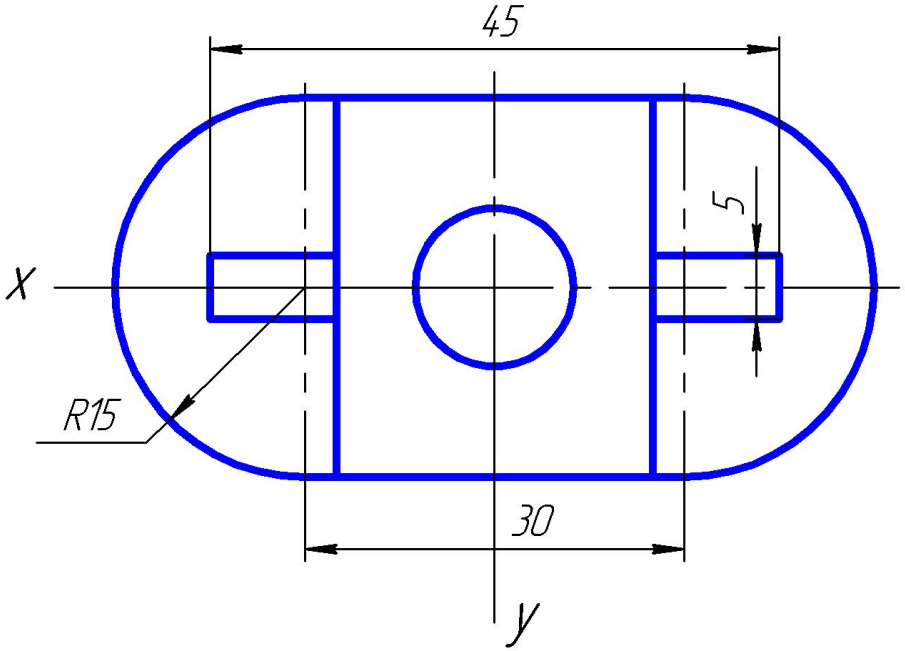


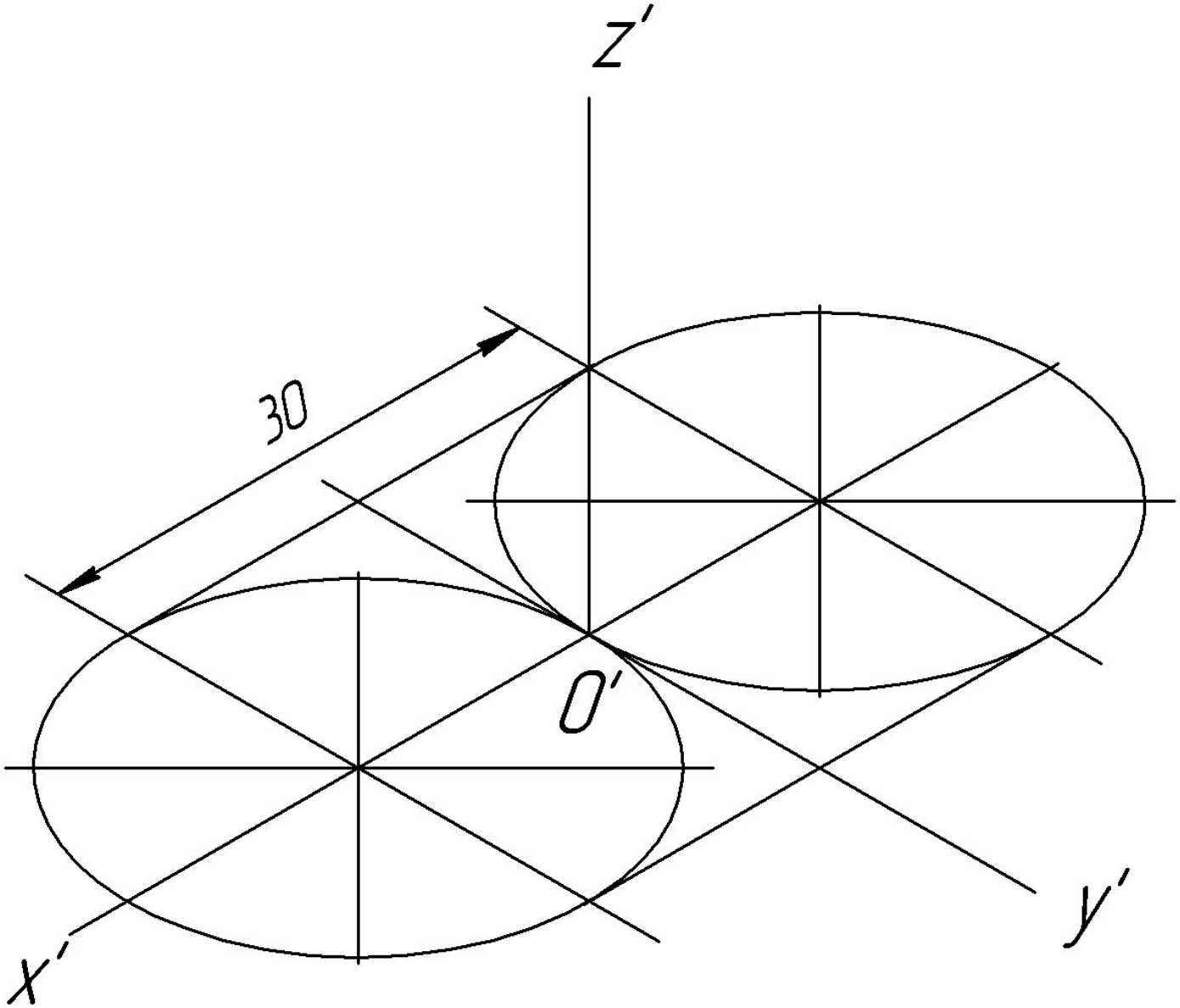
Штриховка в прямоугольной изометрической проекции

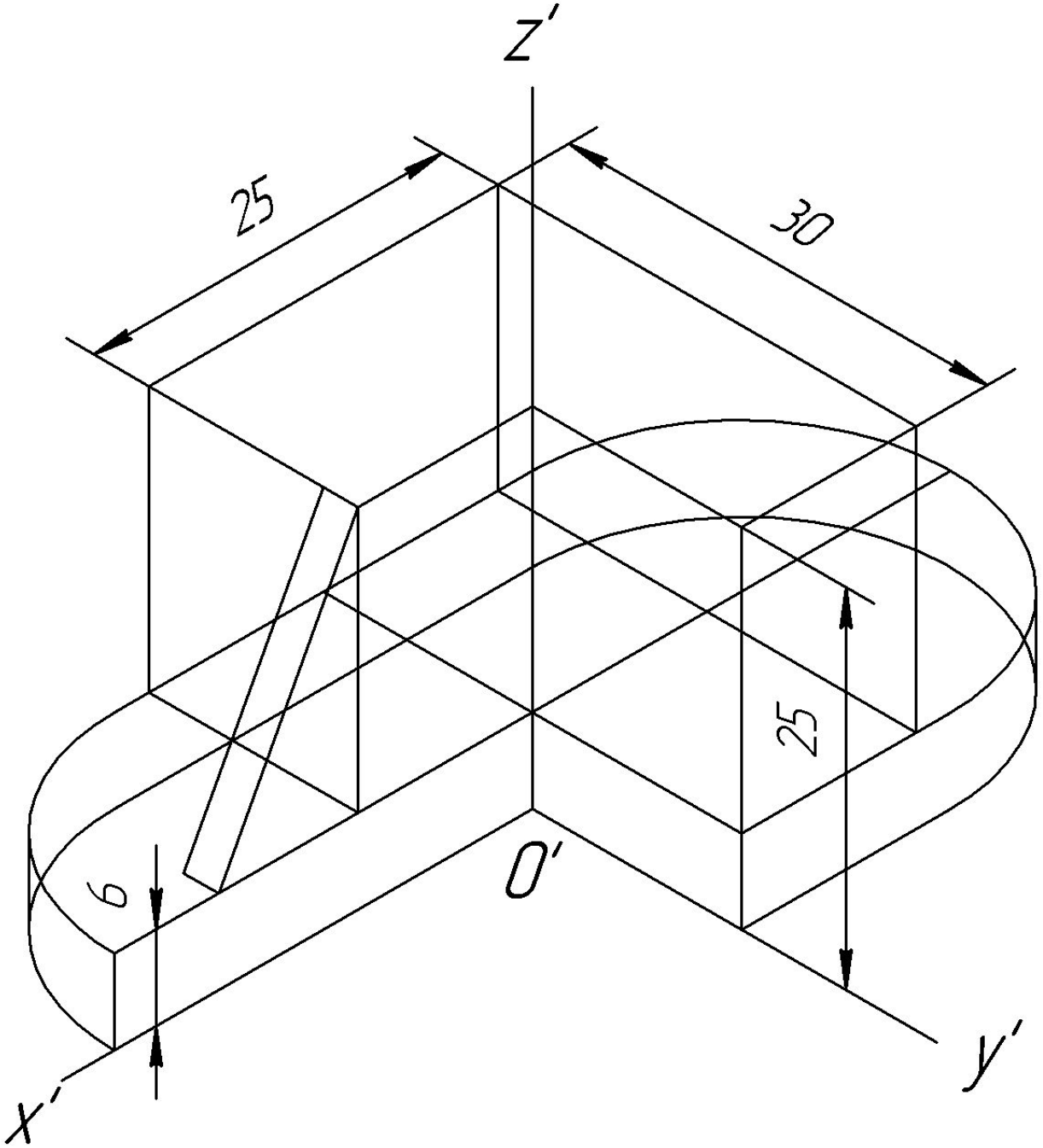


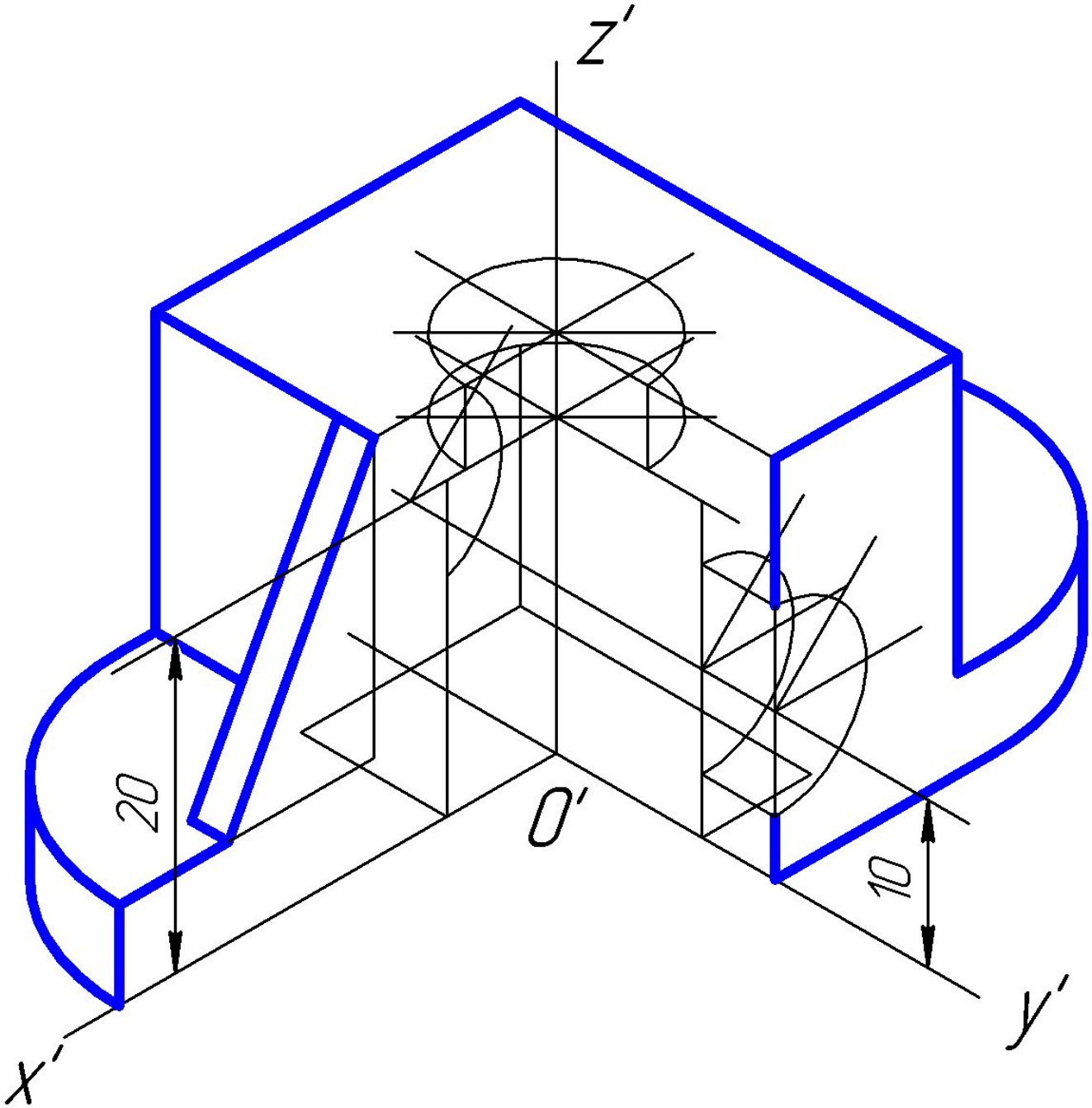

25
⌀12
20
10
15
60*

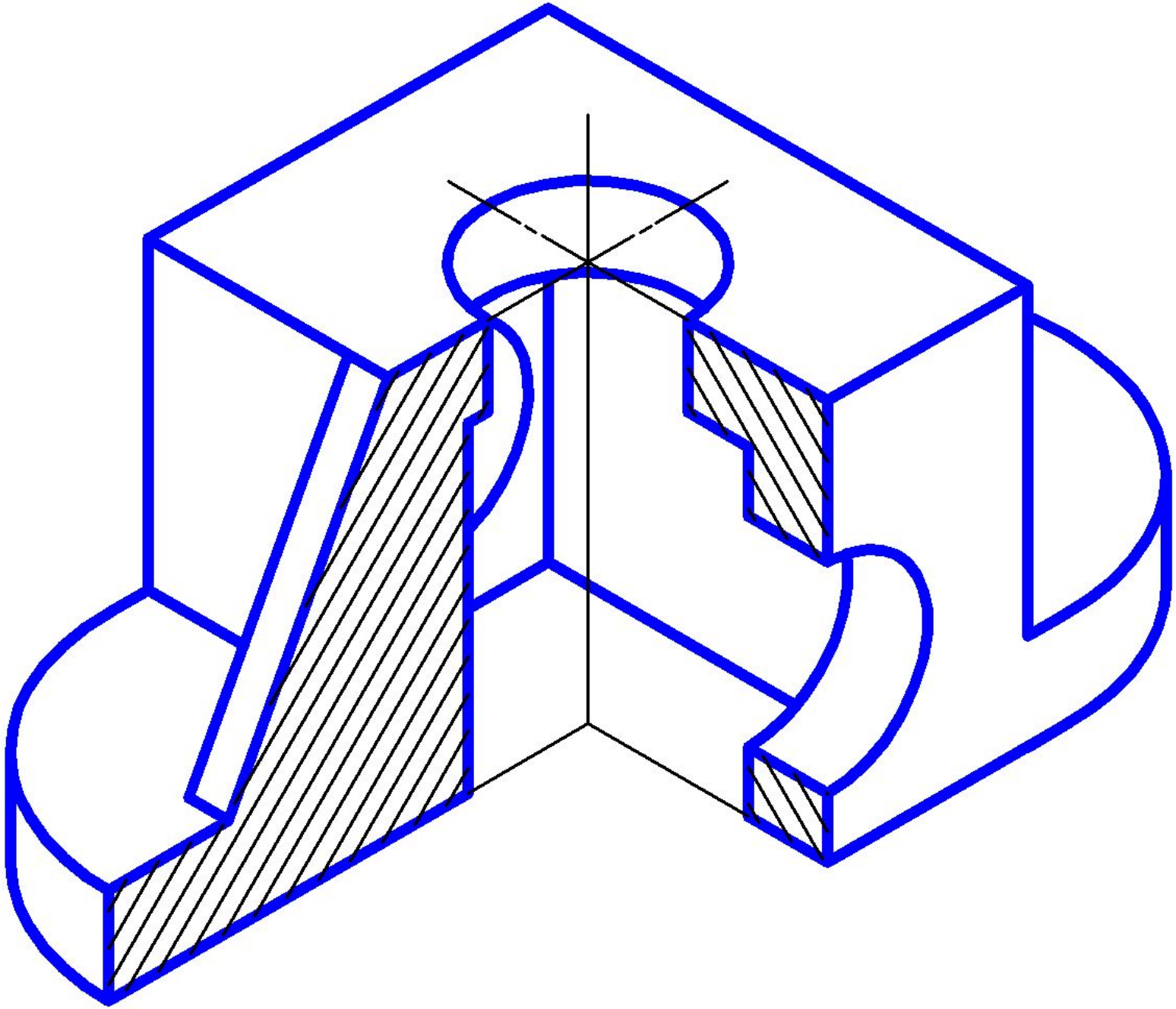

25
6
20
⌀12

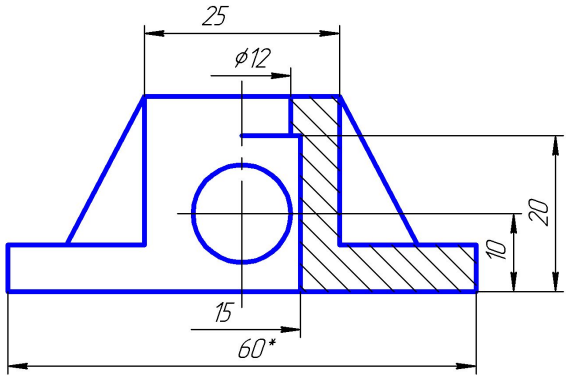

45
5
X
R15
30
y

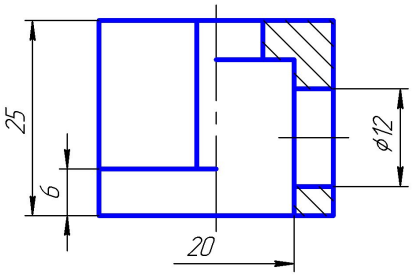

Z'
30
O'
X'
Y'

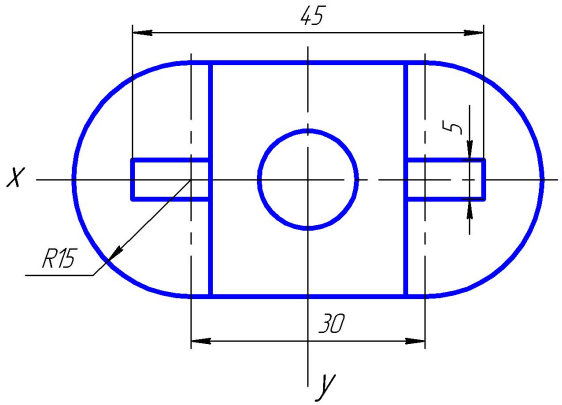
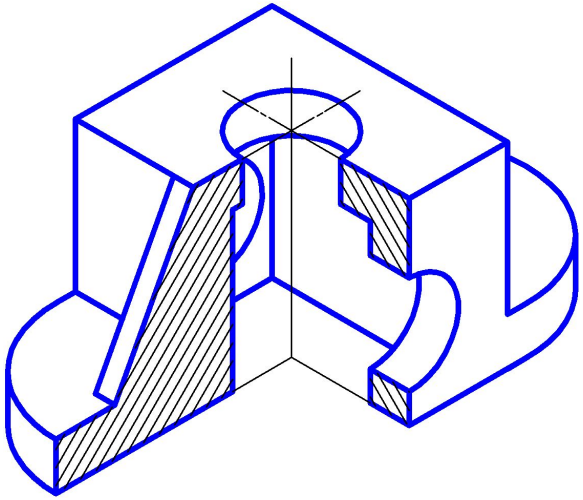

Z'
25
30
25
6
O'
X'
Y'


Z'
20
O'
10
X'
Y'




25
ϕ12
20
10
15
60*


25
6
ϕ12
20


45
5
x
R15
30
y