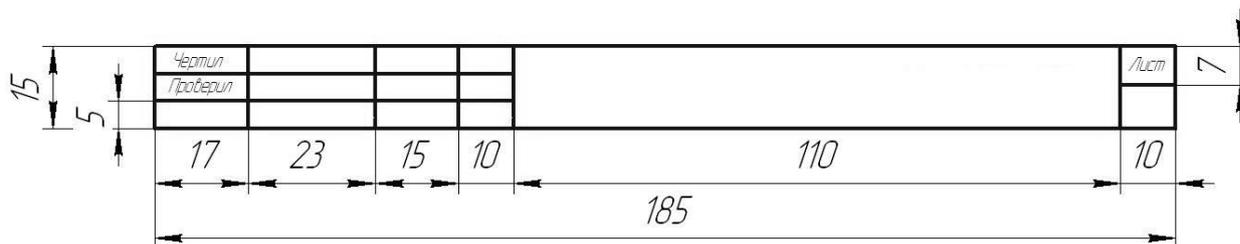
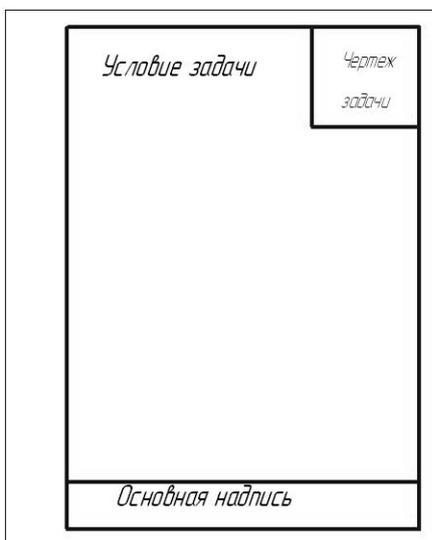


## ОСНОВНЫЕ ТРЕБОВАНИЯ К КОНТРОЛЬНЫМ РАБОТАМ

Все чертежи выполняются в соответствии с ГОСТ ЕСКД (Единая система конструкторской документации). Чертежи должны отмечаться выразительностью, аккуратностью и четкостью графического исполнения. Толщина и тип линий принимается в соответствии с ГОСТ 2.303-68. Условия задач, все геометрические построения выполняются с помощью чертежных инструментов, карандашом, вначале тонкими линиями (0,2 мм), а затем линии видимого контура обводятся сплошной линией толщиной  $0,6 \div 1,4$  мм, линии невидимого контура - штриховой  $0,3 \div 0,4$  мм.. Надписи и цифры на чертежах выполняются стандартным шрифтом по ГОСТ ЕСКД 2.304-81. Высота цифр и букв должна быть не менее 3,5 мм. Рекомендуется оставлять на чертежах вспомогательные построения.

Контрольная работа выполняется на листах чертежной бумаги формата А4 (210x297) по ГОСТ 2.301-68. Поле чертежа ограничивается рамкой. Слева 20 мм от линии обреза листа, с других трех сторон 5 мм (Рис.1). Задача 9 выполняется на формате А3(297x420).

Вдоль короткой стороны формата располагается основная надпись по форме 2а ГОСТ 2.1004-2006.



**НОМЕРА ВАРИАНТОВ ЗАДАНИЙ МОЖНО УЗНАТЬ ИЗ СПИСКОВ**  
**ФАМИЛИЙ ВЫВЕШЕННЫХ НА КАФЕДРЕ ИЛИ ПОЗВОНИВ ПО**  
**ТЕЛЕФОНУ НА КАФЕДРУ**

***УСЛОВИЯ ЗАДАЧ ДЛЯ ВАРИАНТОВ ЗАДАНИЙ (ФБФО)***

*Задача №1. В заданной плоскости через точку  $A$  построить горизонталь, через точку  $B$  – фронталь.*

*Задача №2. Построить недостающую проекцию треугольника  $ABC$ , принадлежащего плоскости.*

*Задача №3. Построить линию пересечения плоскостей. Определить видимость плоскостей.*

*Задача №4. Построить линию пересечения плоскостей.*

*Задача №5. Построить точку пересечения прямой  $\ell$  с плоскостью  $\alpha$ . Определить видимость прямой*

*Задача №6. Построить линию пересечения поверхности с плоскостью.*

*Задача №7. Построить линию пересечения поверхности конуса с плоскостью.*

*Задача №8. Построить точки пересечения прямой  $\ell$  с поверхностью геометрического тела. Определить видимость прямой.*

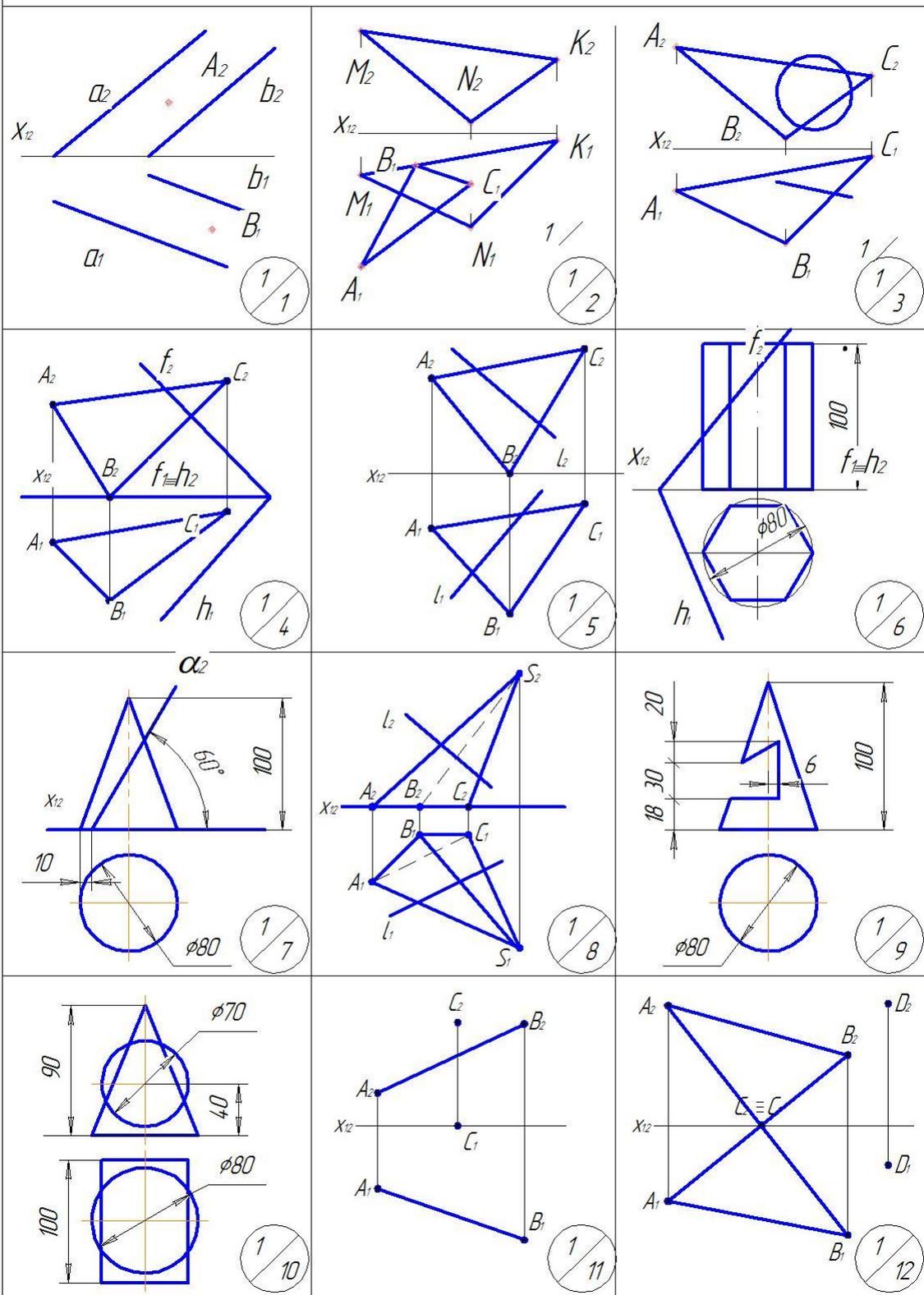
*Задача №9. Построить три проекции геометрического тела с вырезом (формат А3)*

*Задача №10. Построить линию пересечения поверхностей заданных геометрических тел.*

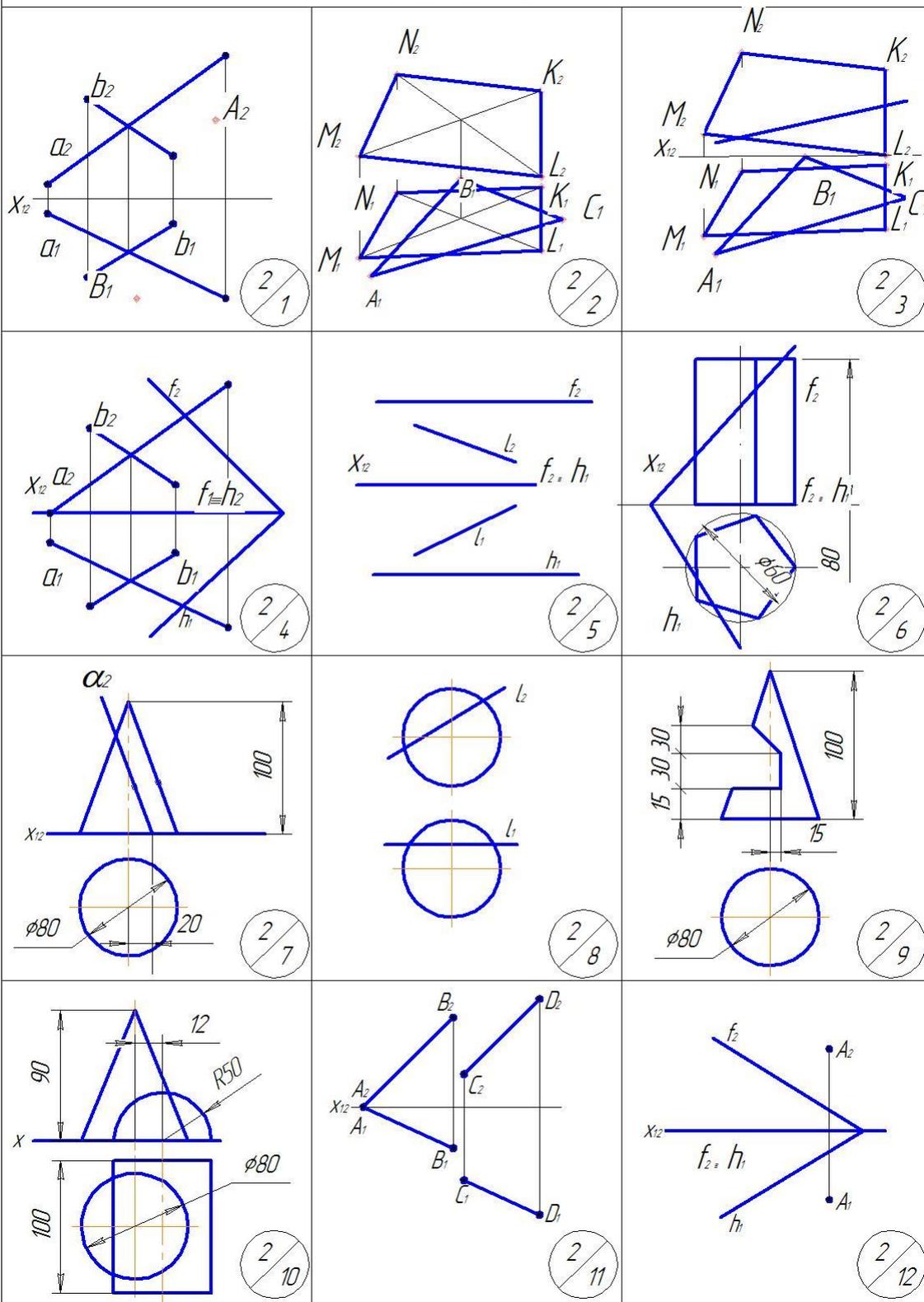
*Задача №11. Найти расстояние от точки до прямой или расстояние между параллельными прямыми.*

*Задача №12. Найти расстояние от точки до плоскости.*

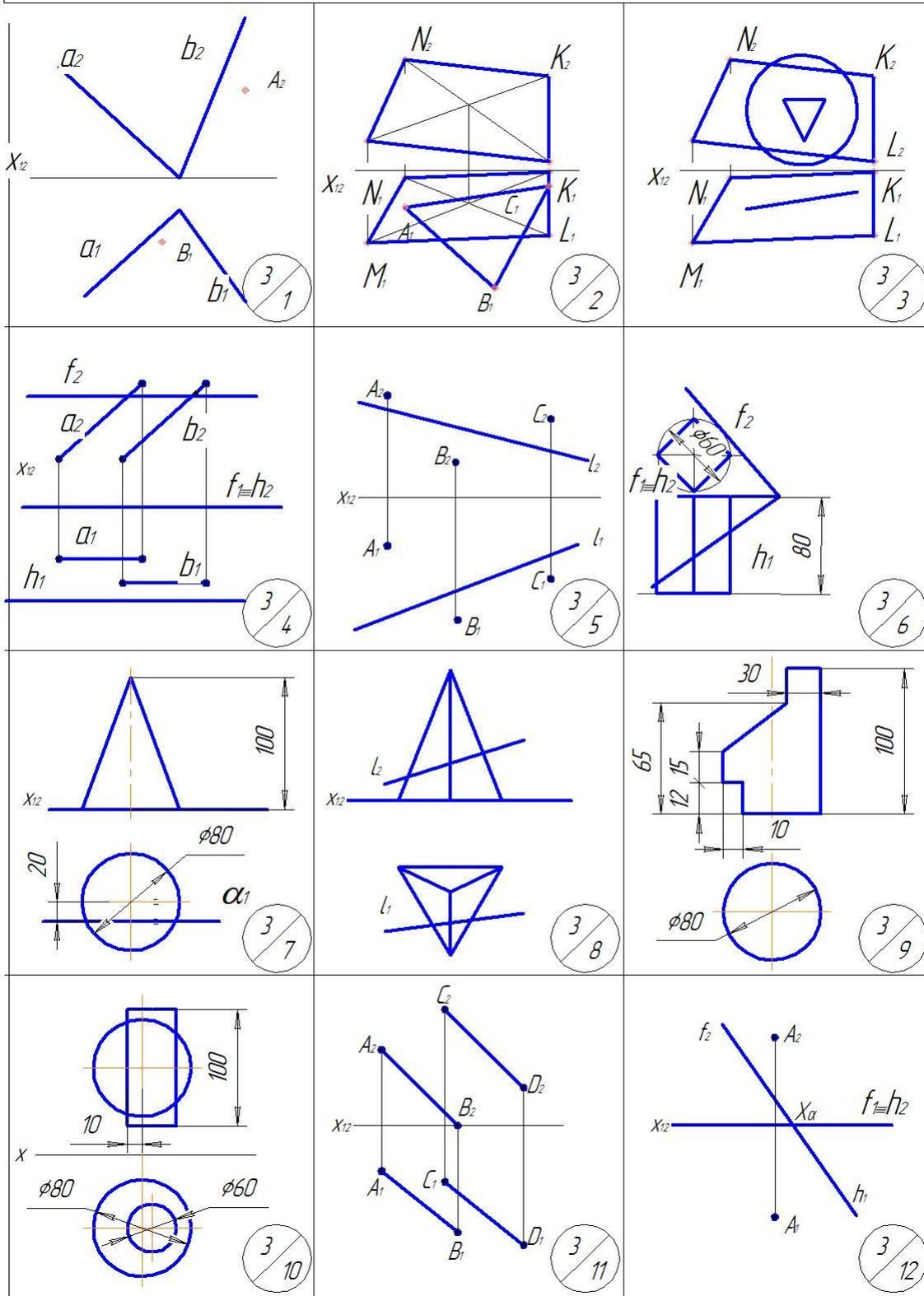
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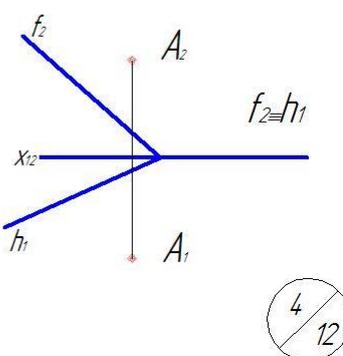
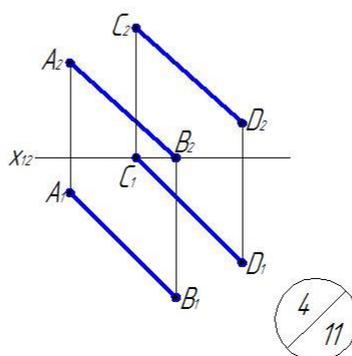
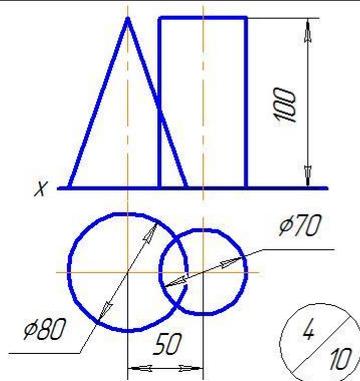
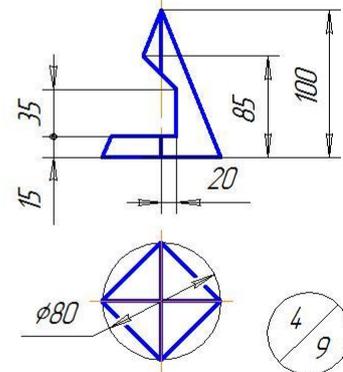
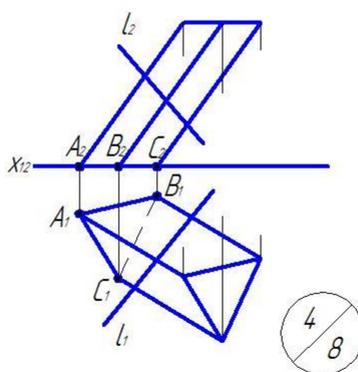
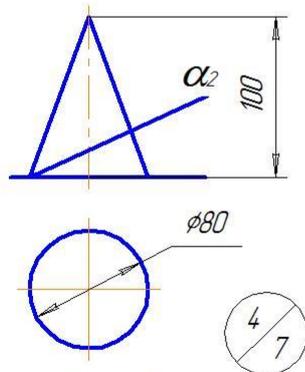
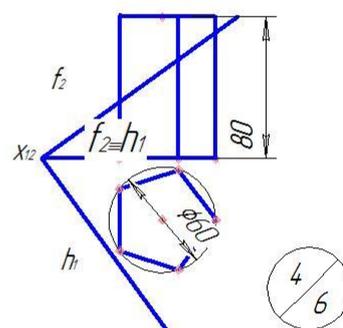
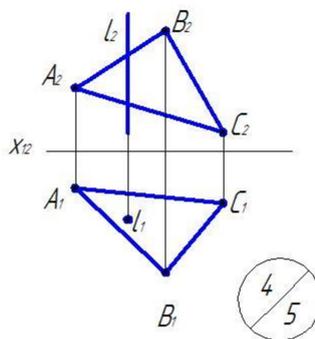
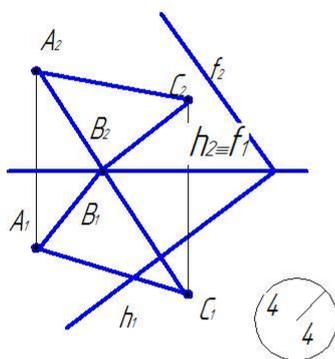
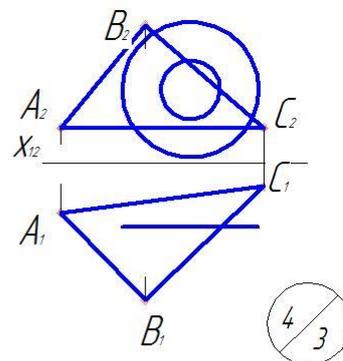
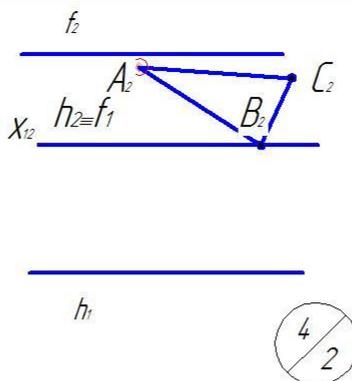
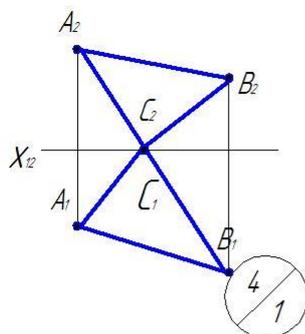
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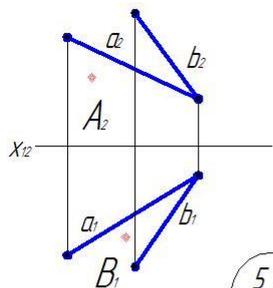
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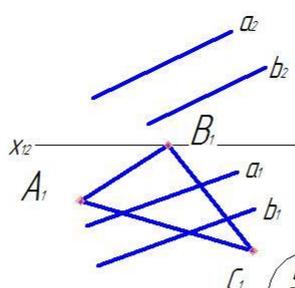
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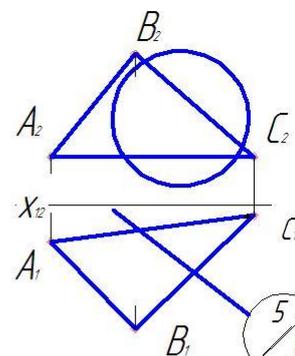
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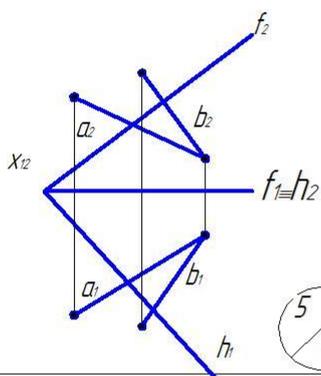
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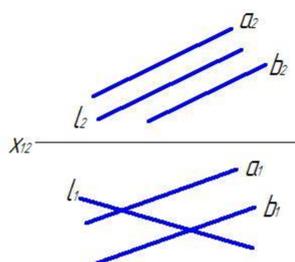
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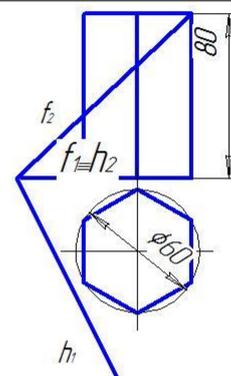
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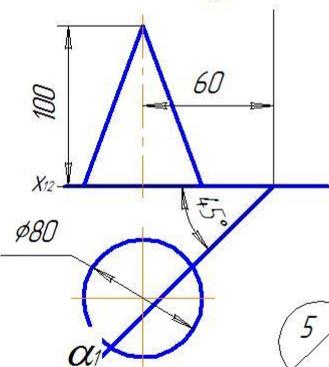
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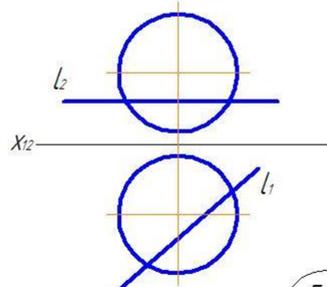
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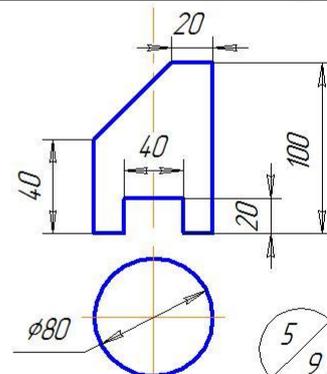
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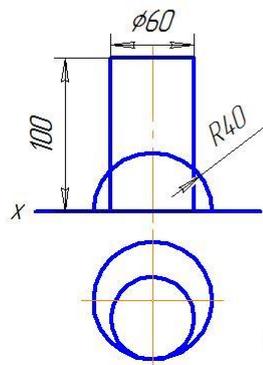
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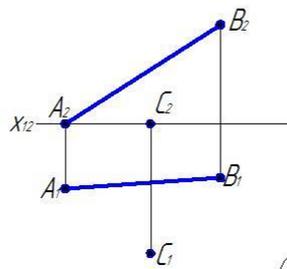
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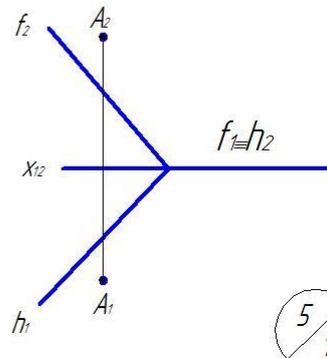
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5/10

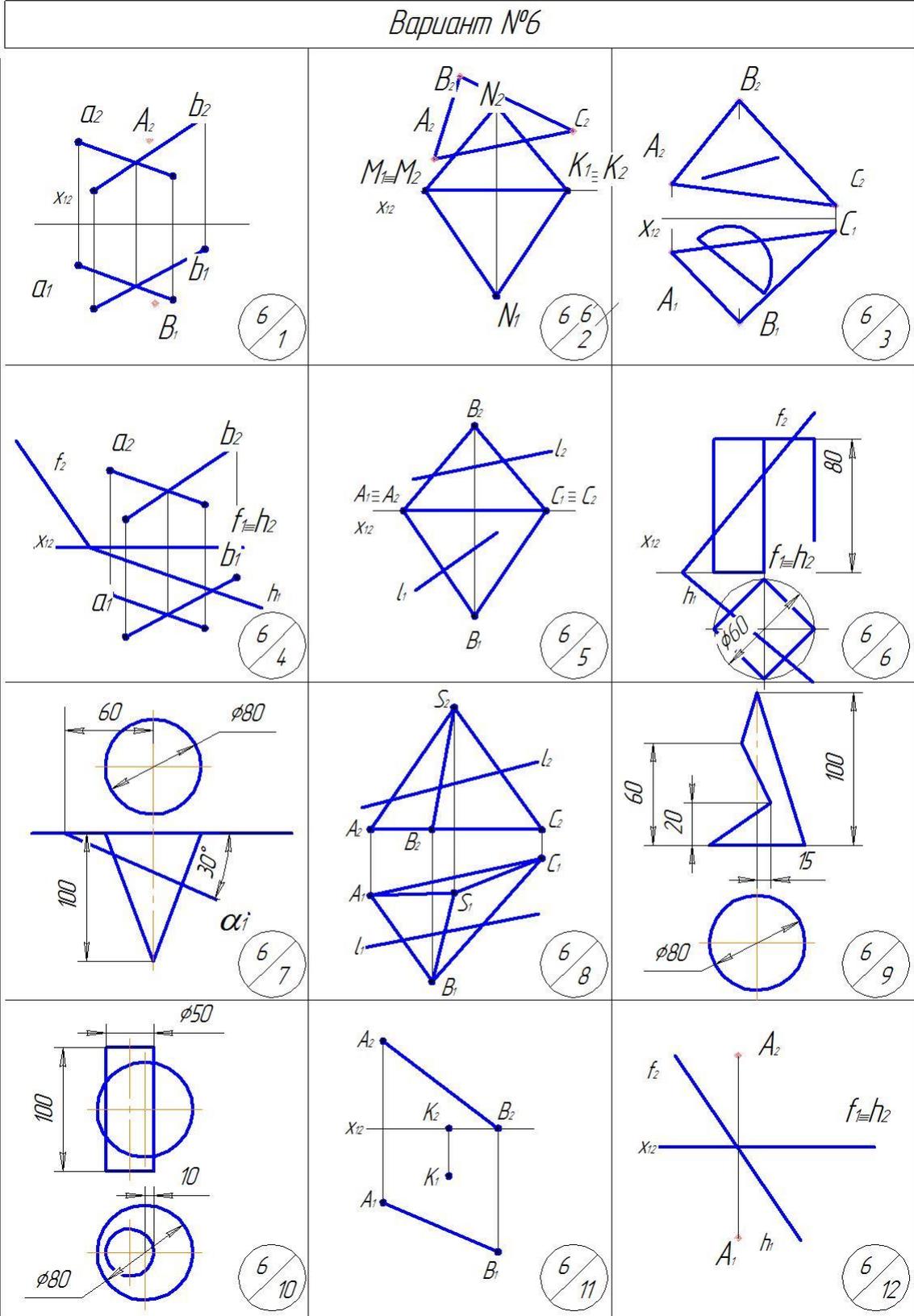


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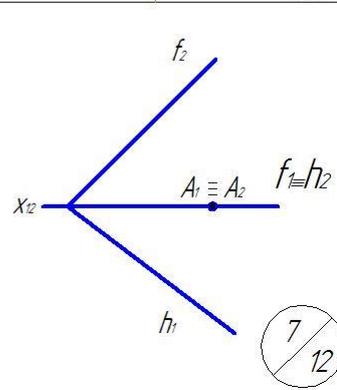
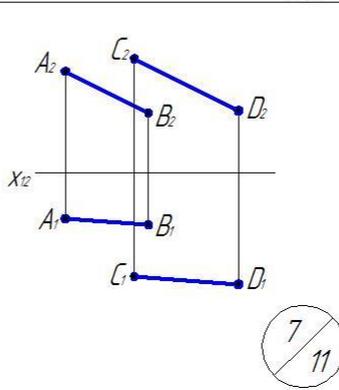
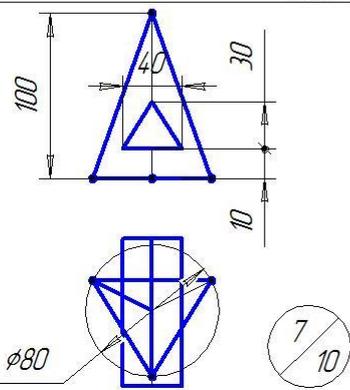
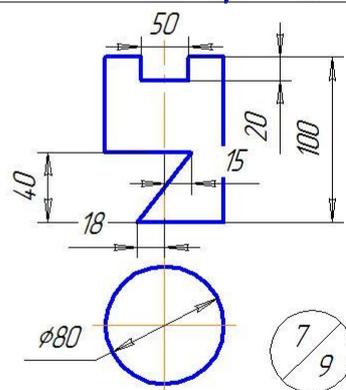
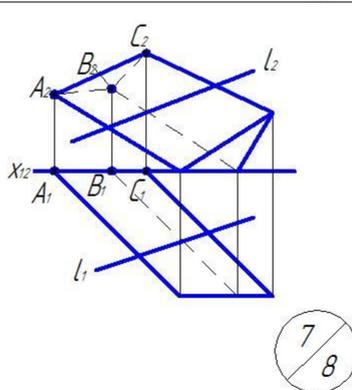
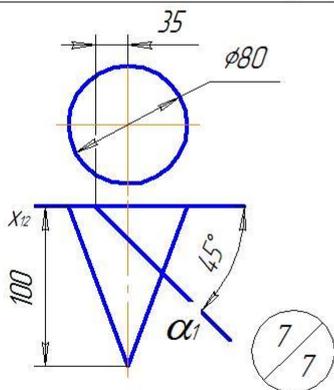
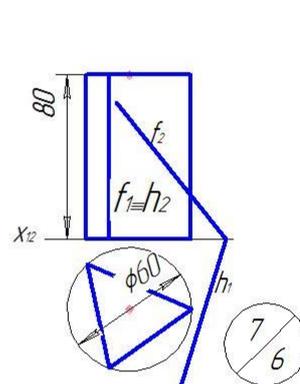
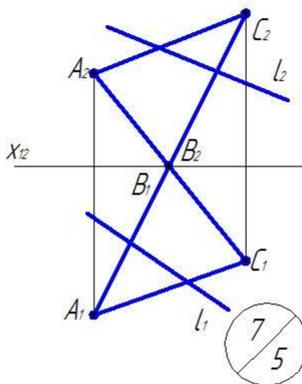
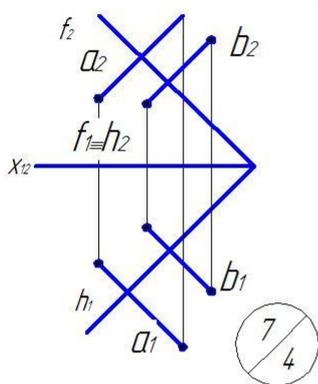
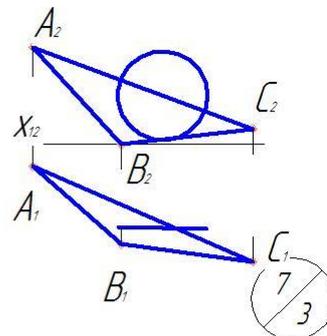
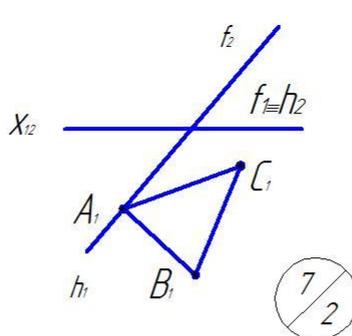
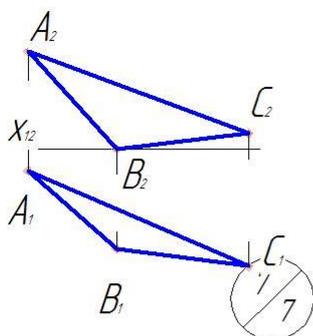


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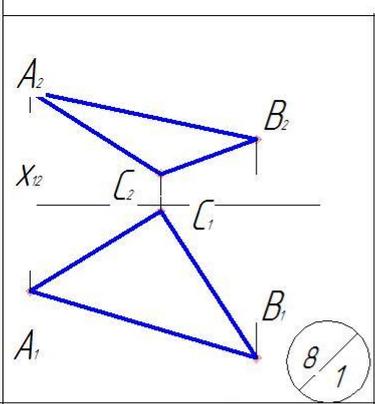
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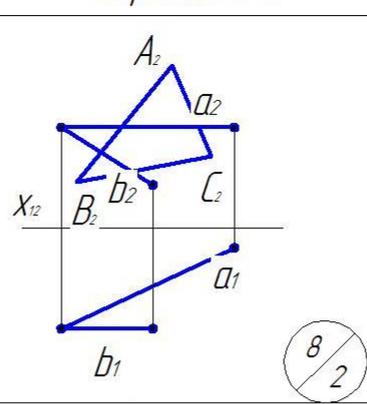
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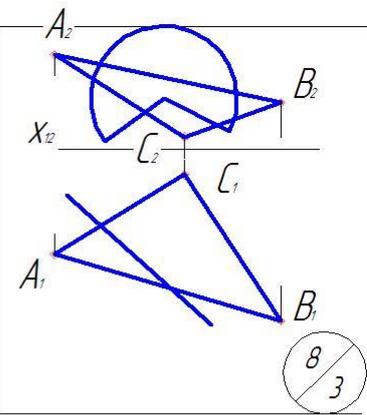
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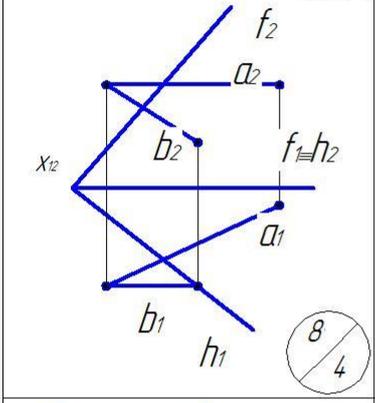
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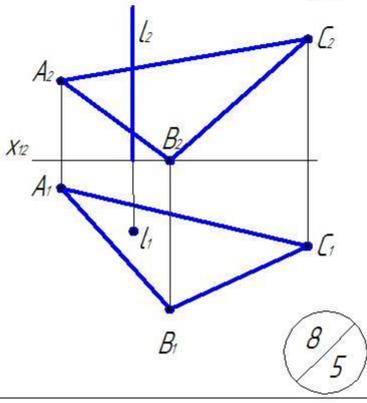
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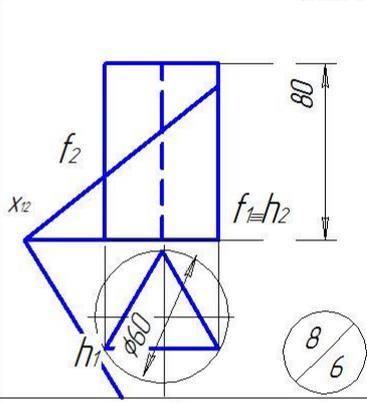
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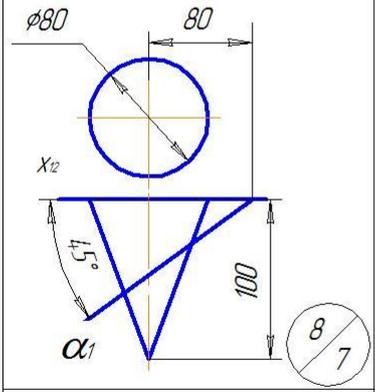
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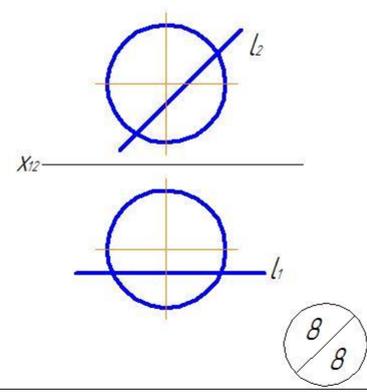
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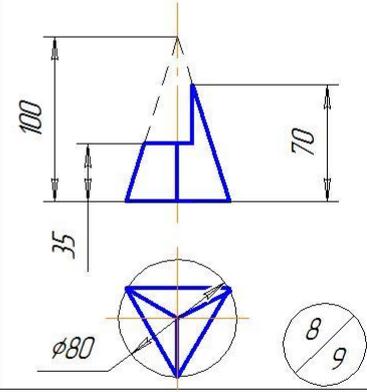
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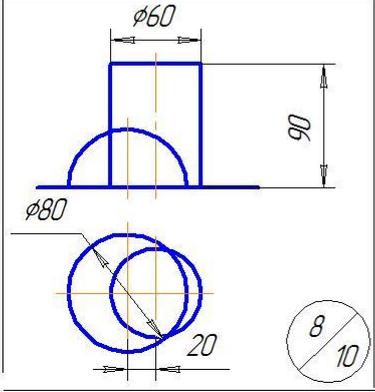
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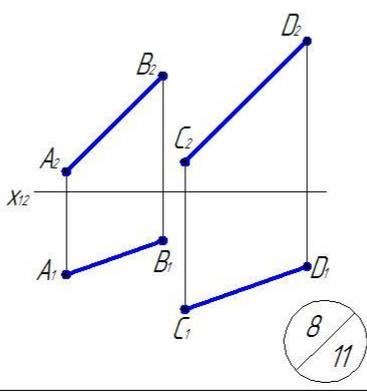
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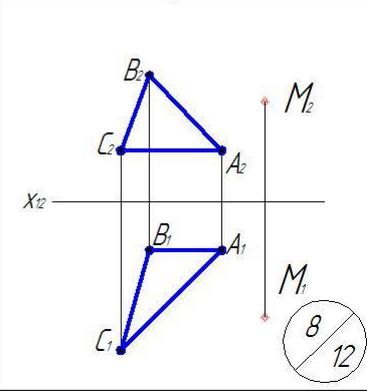
8/9



8/10

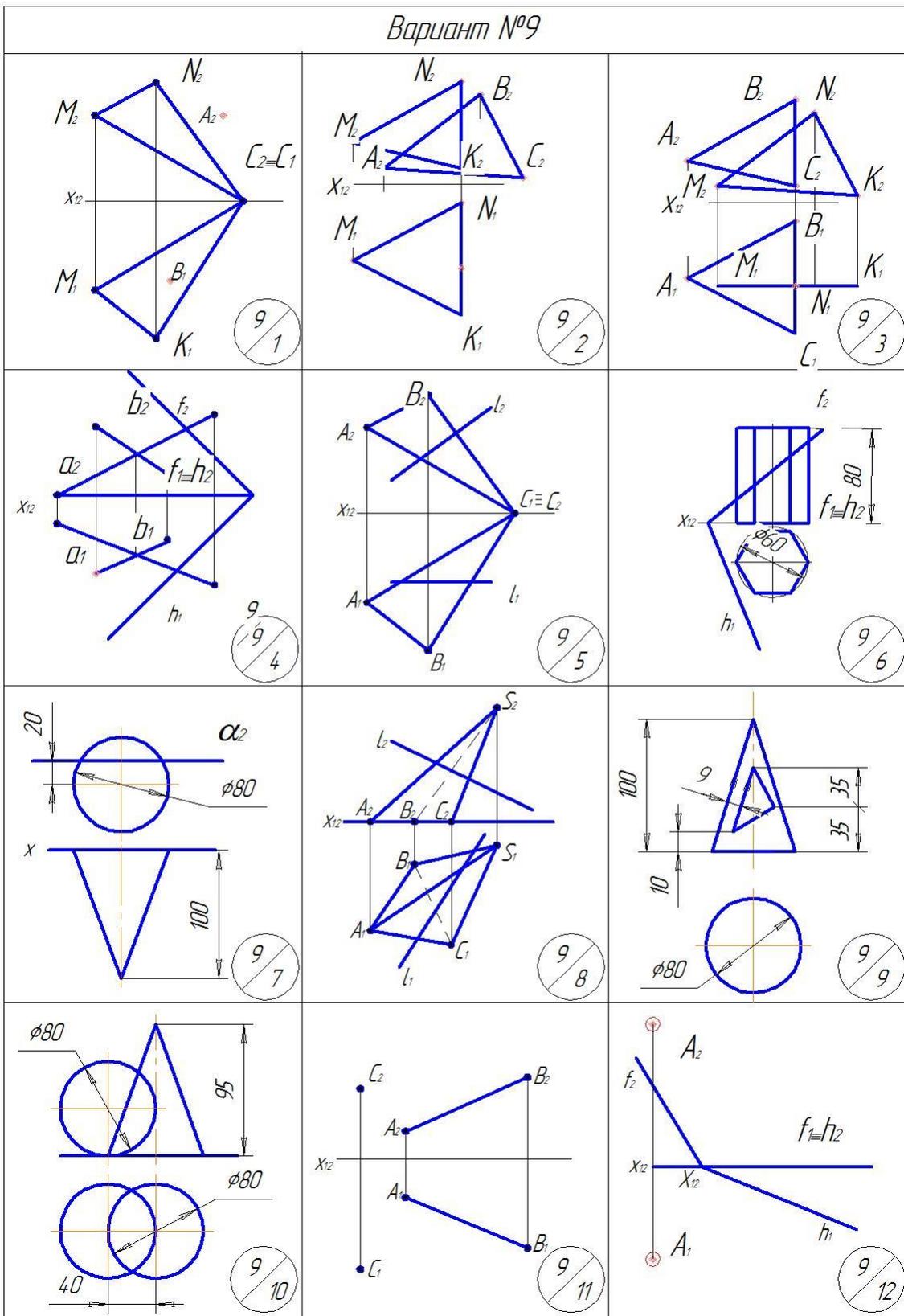


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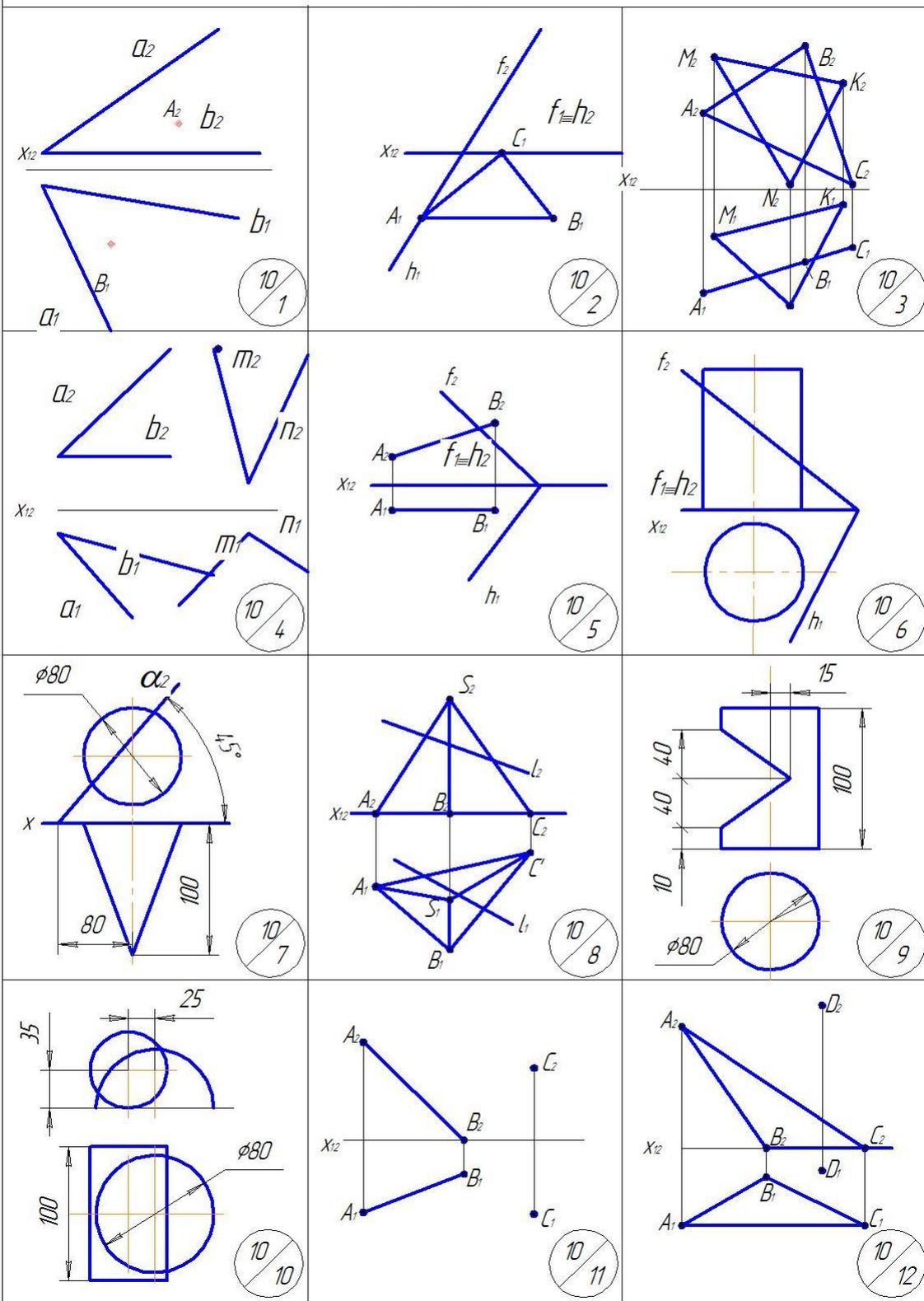


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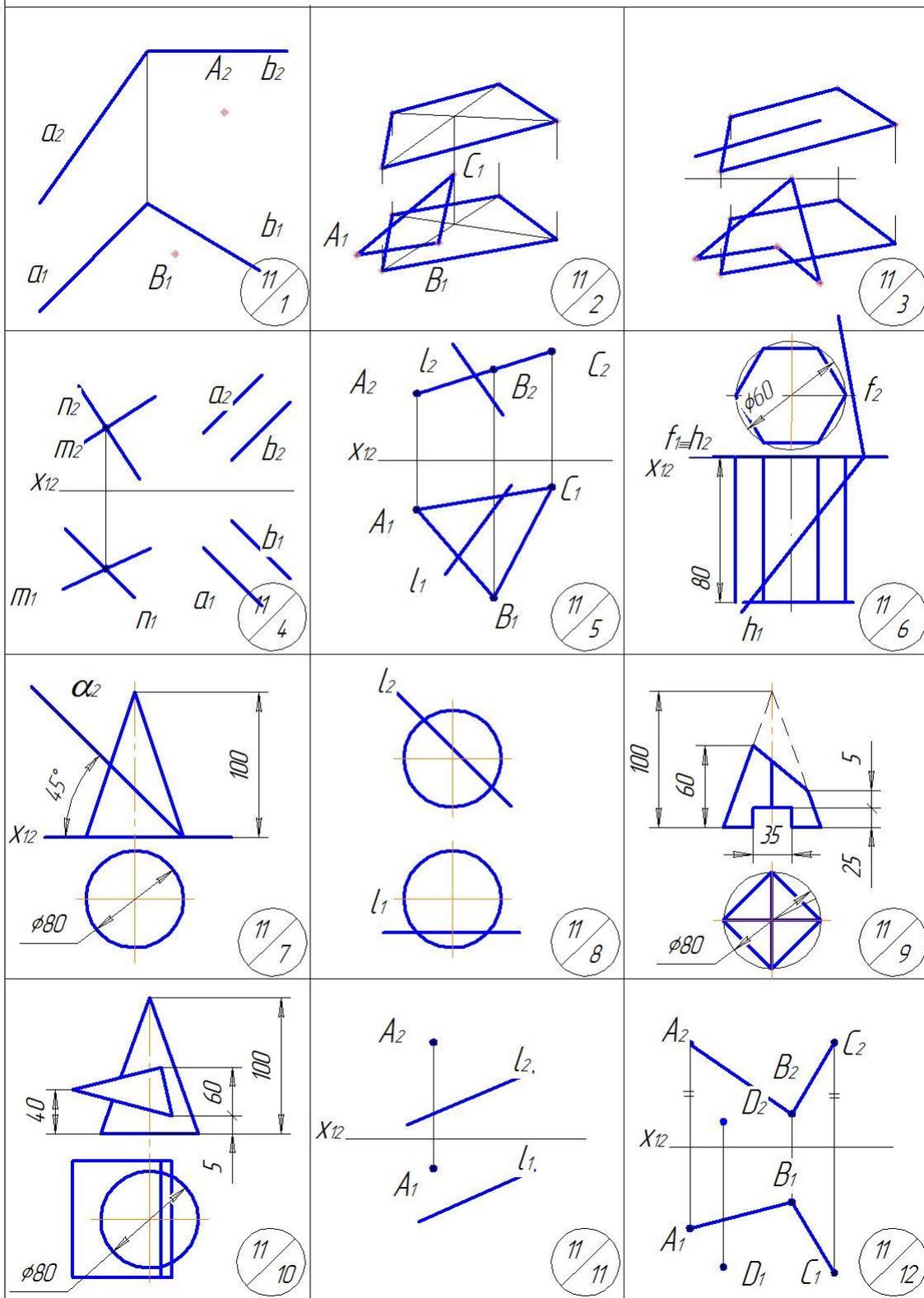
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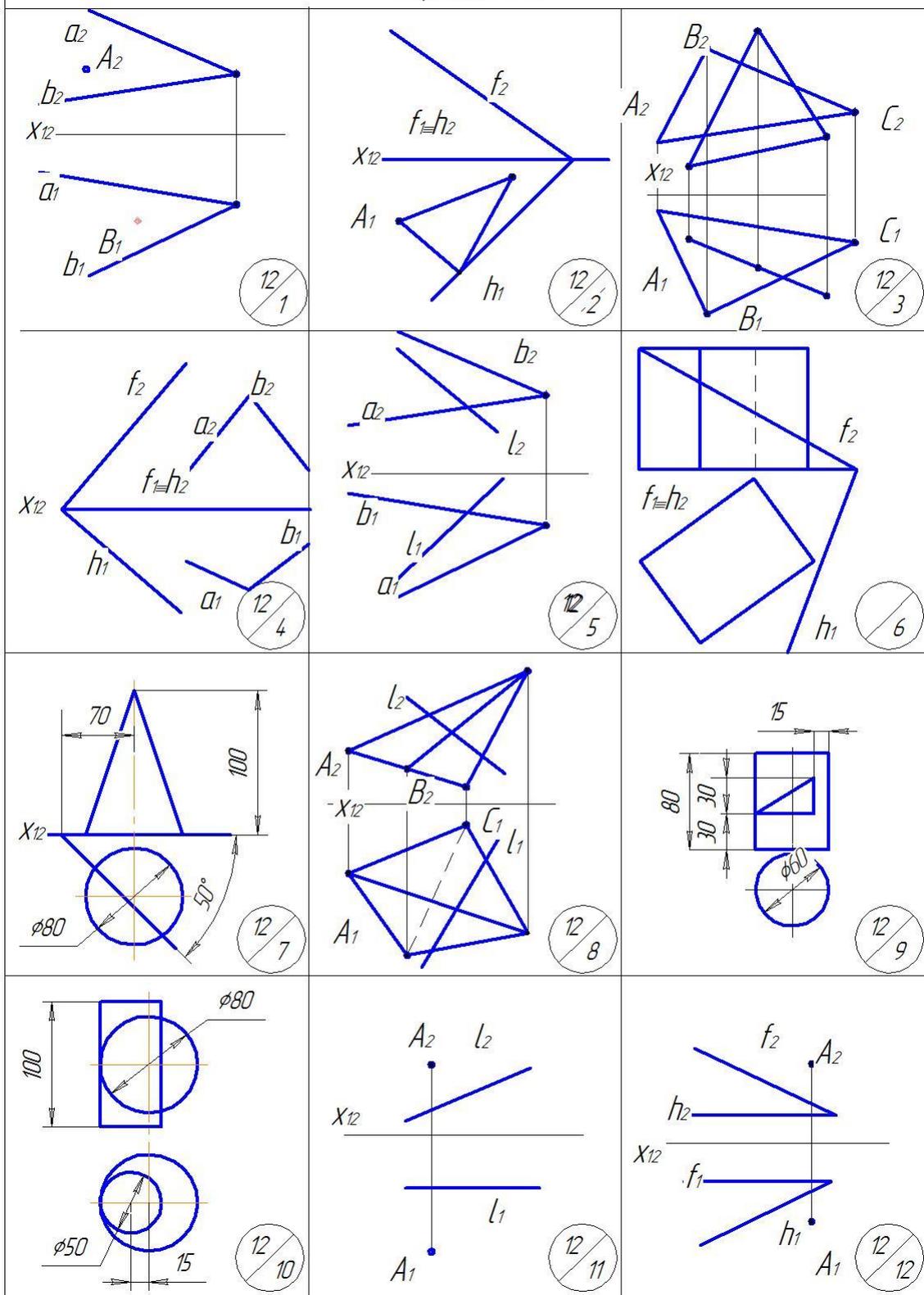
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Вариант №11



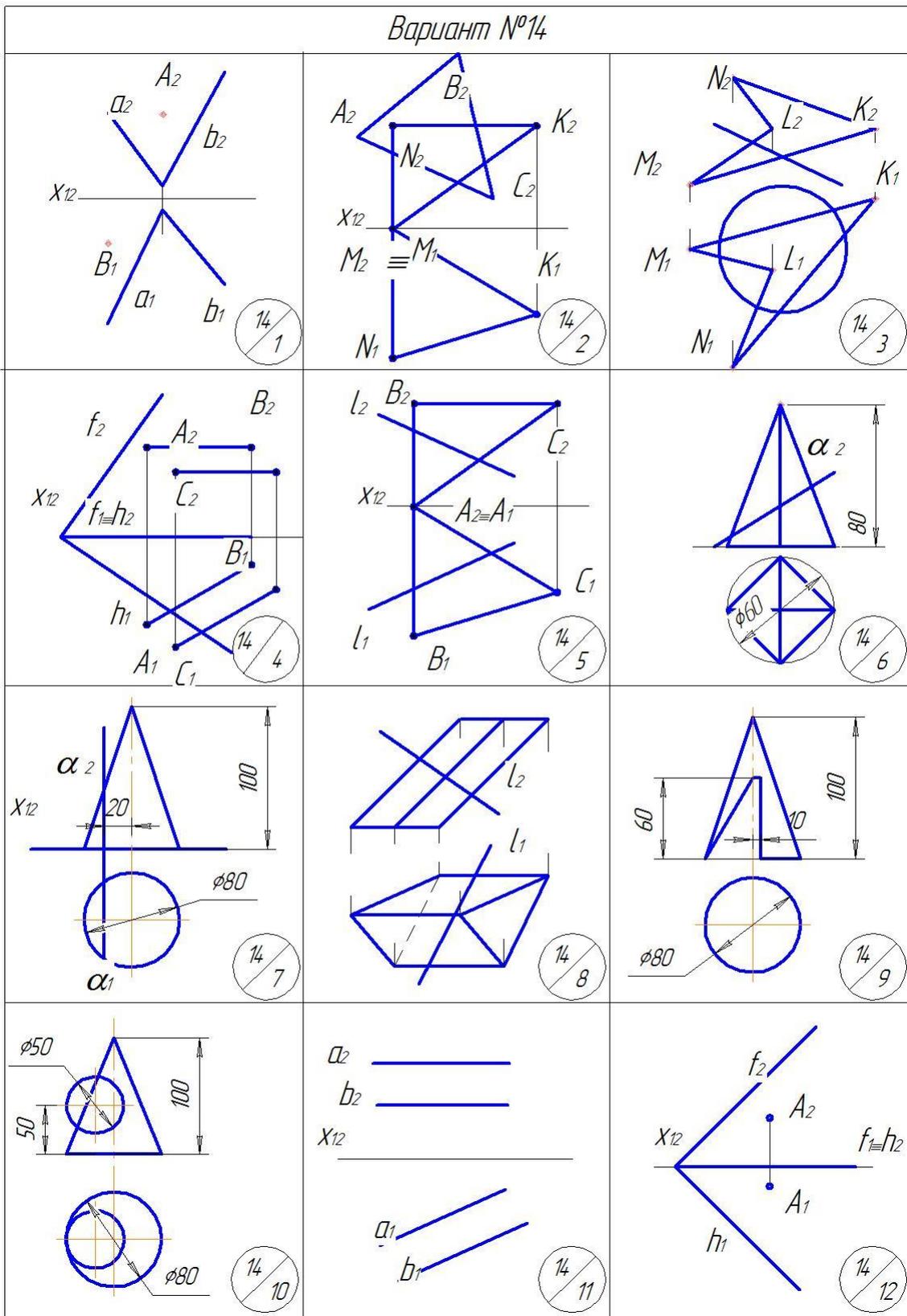
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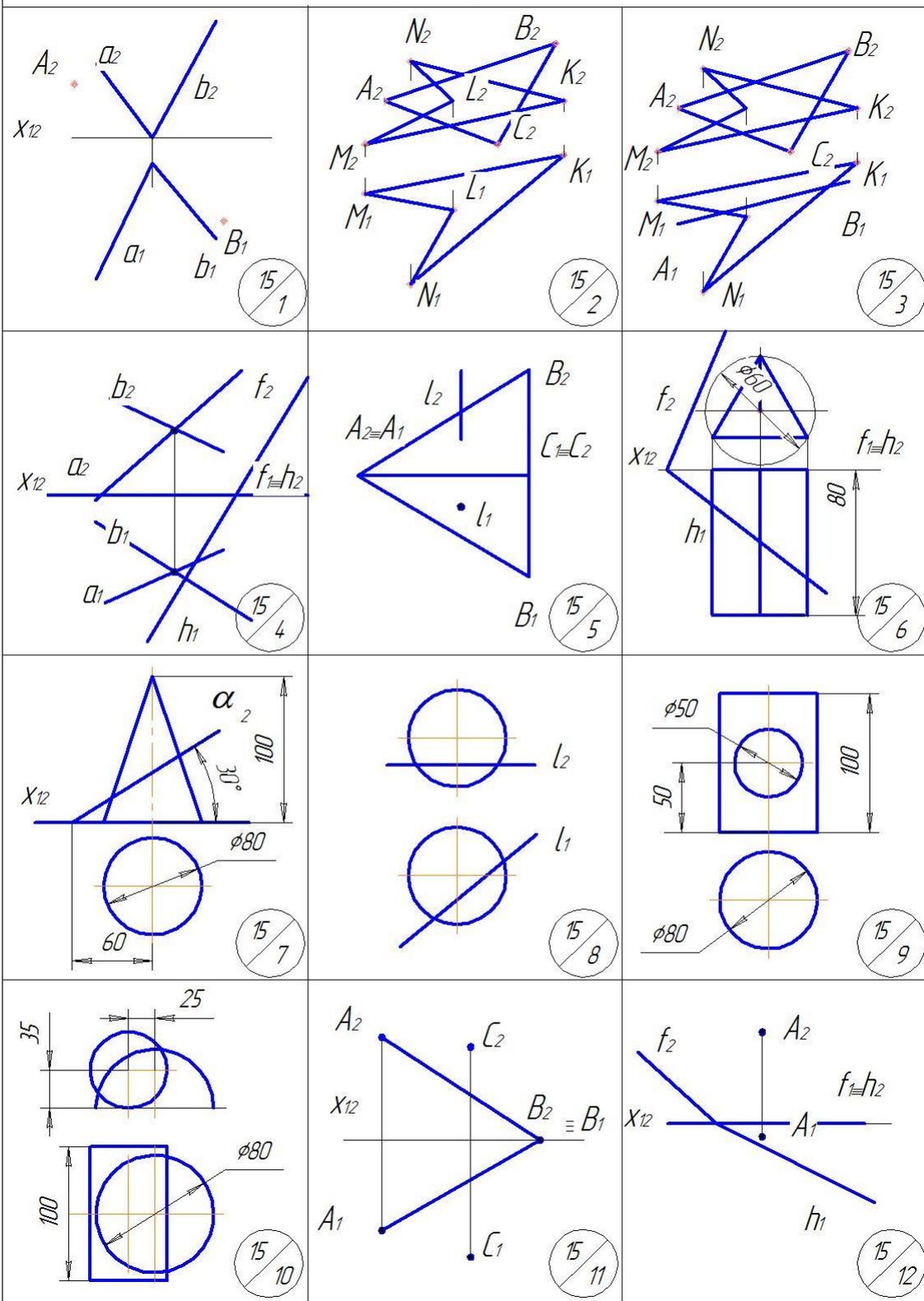
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<p><math>A_2</math> <math>B_2</math> <math>f_2</math> <math>X_{12}</math> <math>C_2</math> <math>f_1=h_2</math> <math>A_1</math> <math>C_1</math> <math>B_1</math> <math>h_1</math></p> <p>13/4</p>	<p><math>B_2</math> <math>C_2</math> <math>X_{12}</math> <math>A_2</math> <math>B_1</math> <math>C_1</math> <math>A_1</math> <math>l_1</math></p> <p>13/5</p>	<p><math>f_2</math> <math>X_{12}</math> <math>f_1=h_2</math> <math>h_1</math> <math>B_1</math></p> <p>13/6</p>
<p><math>\alpha_2</math> <math>100</math> <math>X_{12}</math> <math>\phi 80</math> <math>60</math></p> <p>13/7</p>	<p><math>l_2</math> <math>l_1</math></p> <p>13/8</p>	<p><math>20</math> <math>100</math> <math>30</math> <math>25</math> <math>\phi 80</math></p> <p>13/9</p>
<p><math>\phi 40</math> <math>100</math> <math>40</math> <math>\phi 80</math> <math>100</math></p> <p>13/10</p>	<p><math>a_2</math> <math>b_2</math> <math>X_{12}</math> <math>a_1</math> <math>b_1</math></p> <p>13/11</p>	<p><math>f_2</math> <math>A_2</math> <math>X_{12}</math> <math>f_1=h_2</math> <math>h_1</math> <math>A_1</math></p> <p>13/12</p>

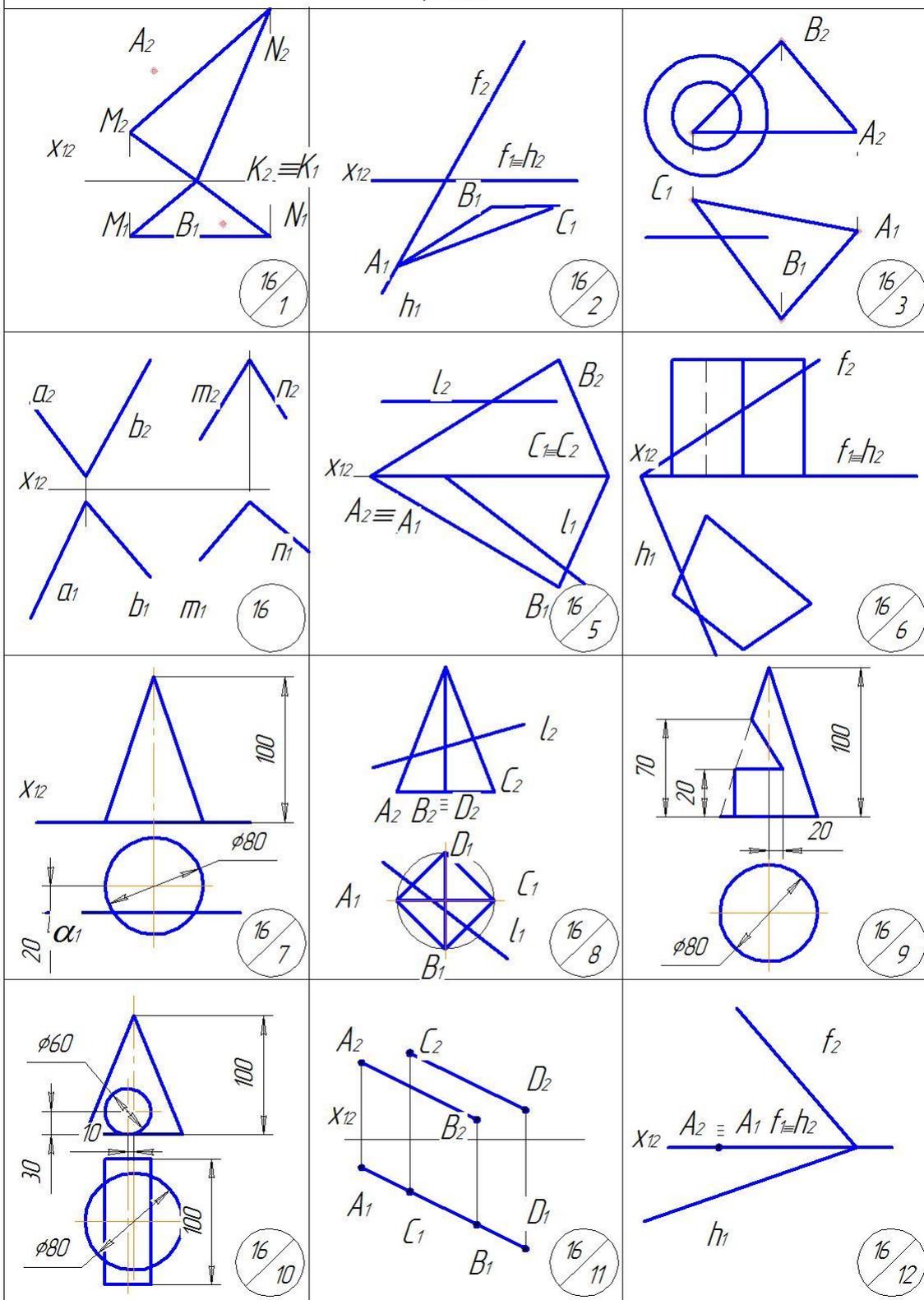
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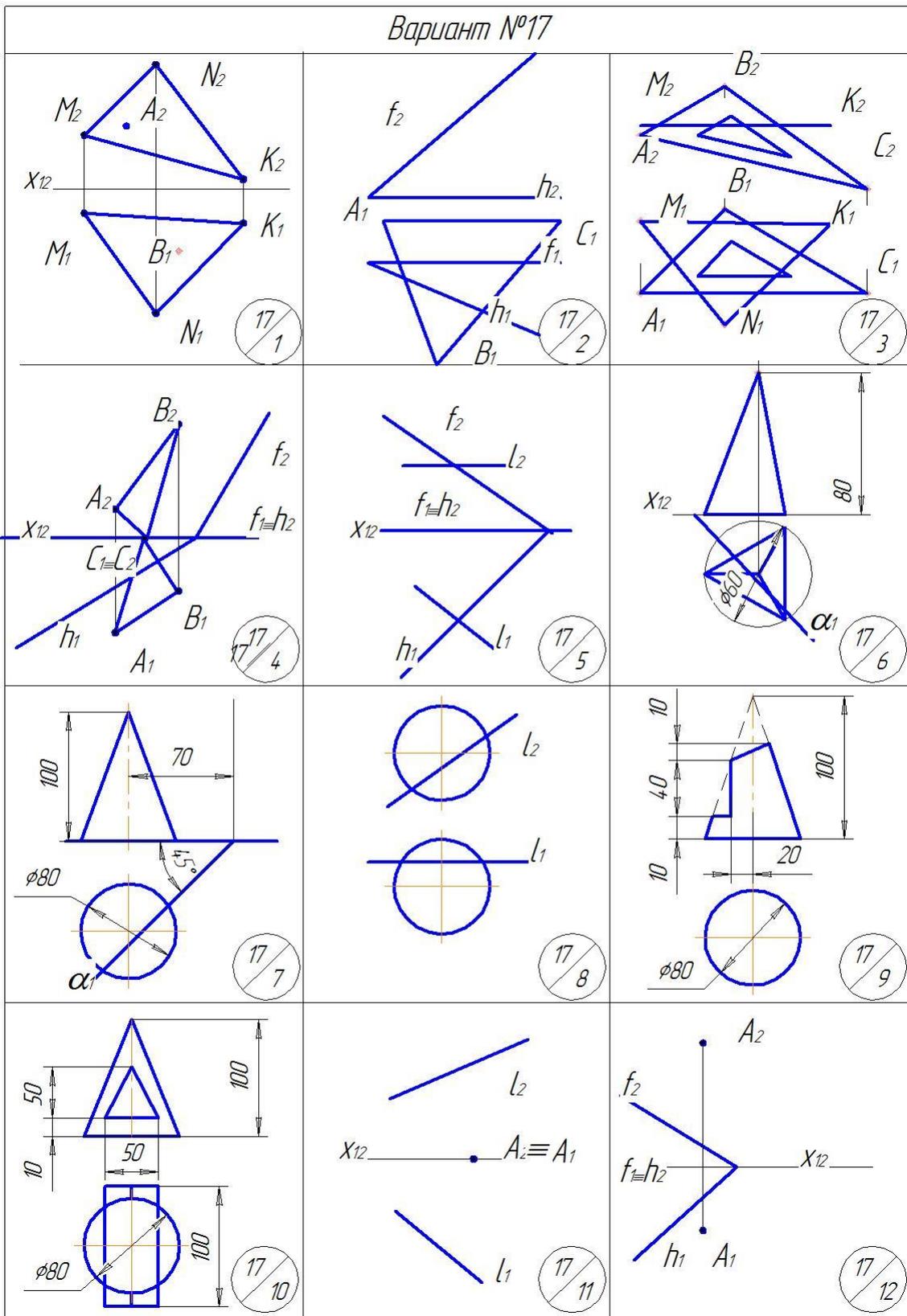
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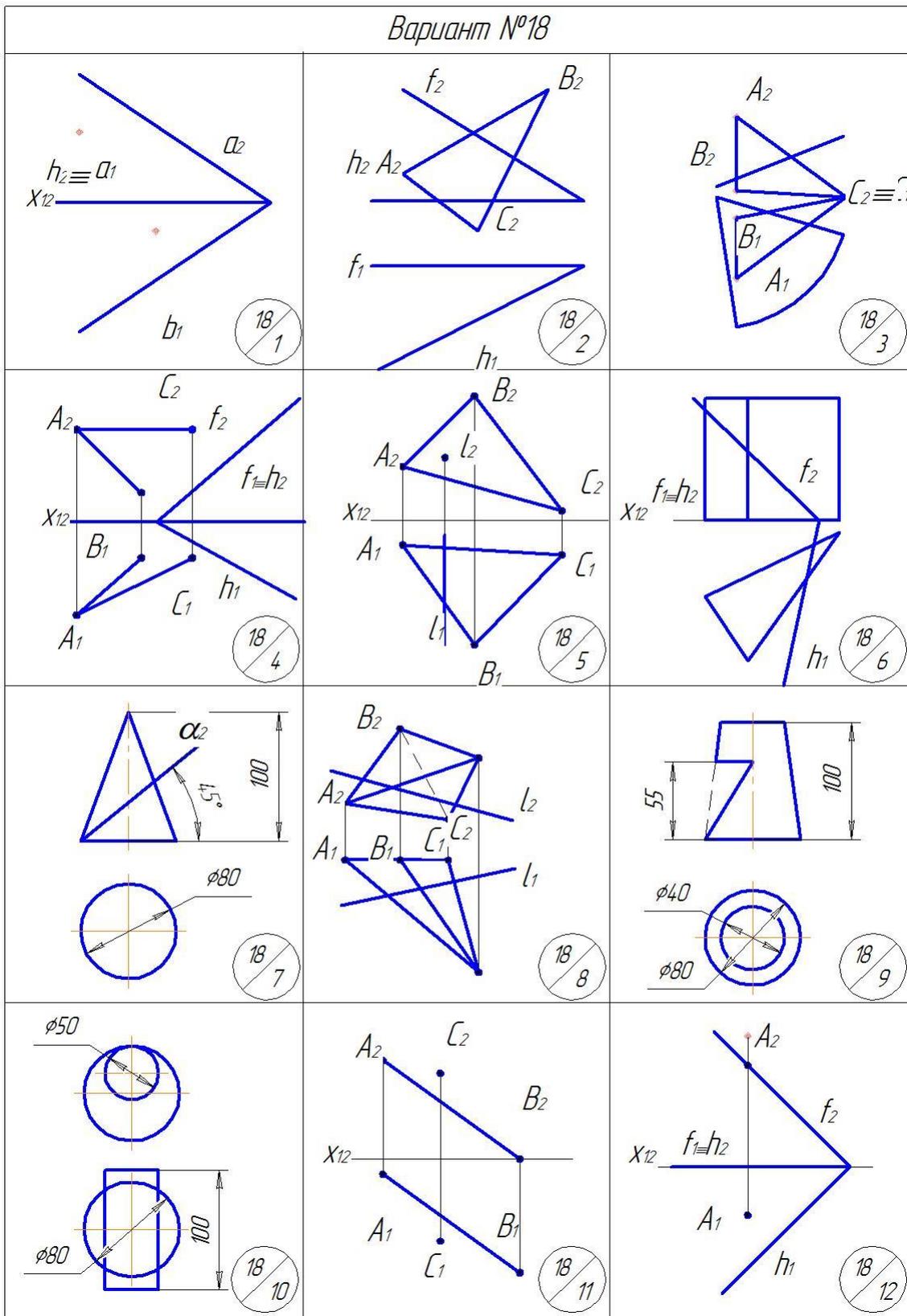
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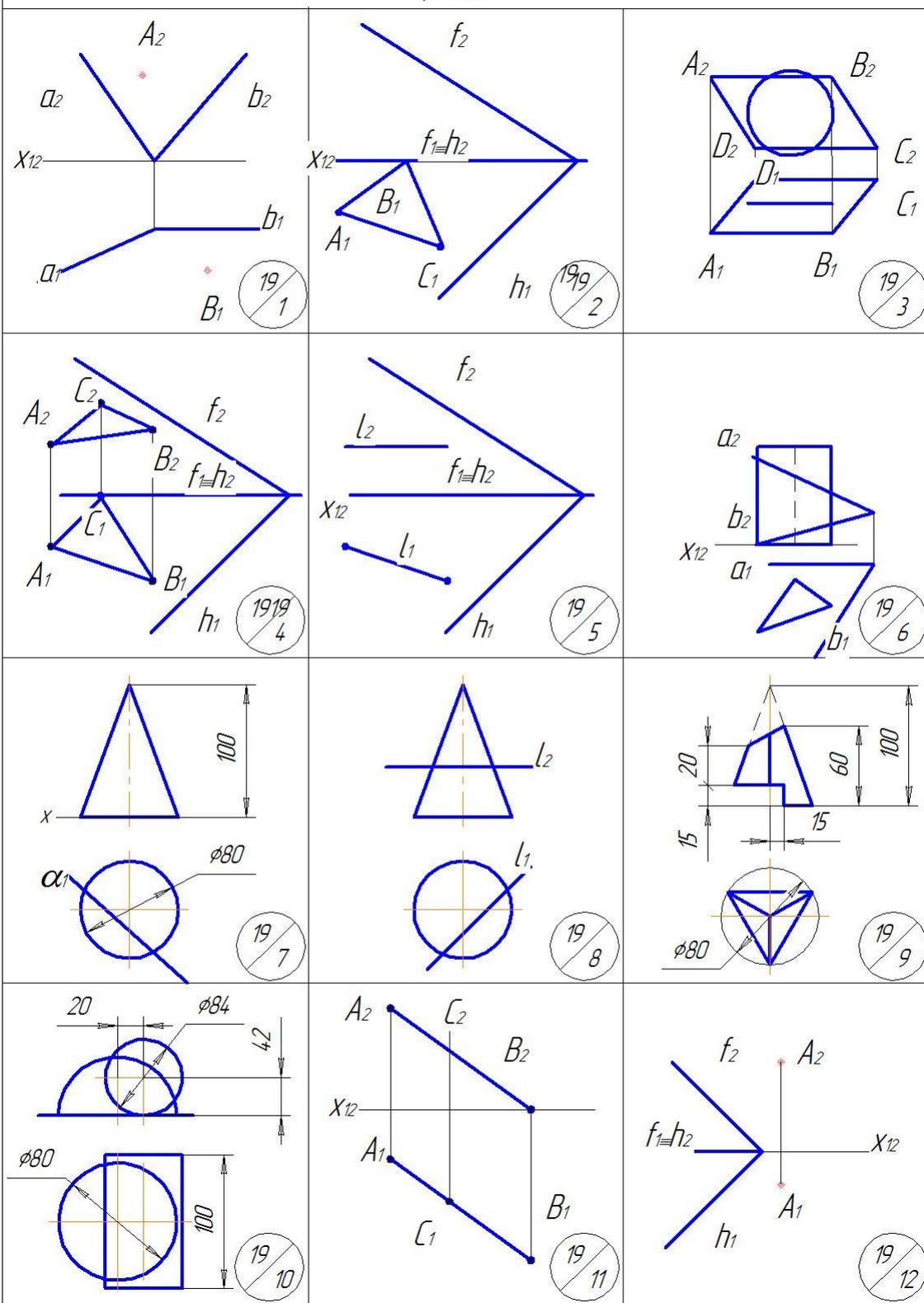
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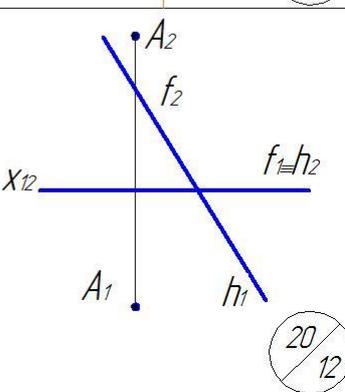
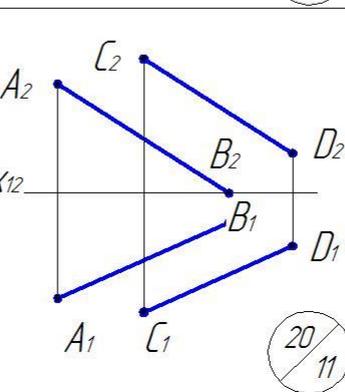
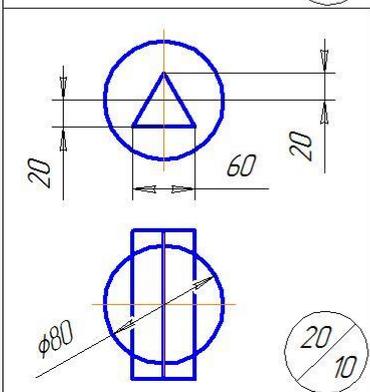
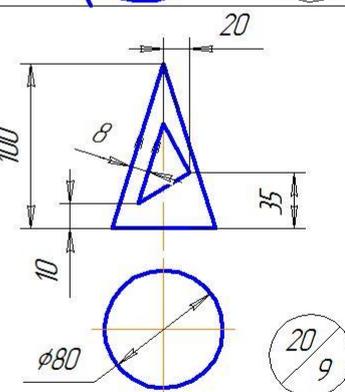
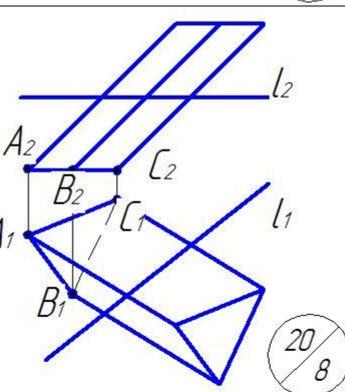
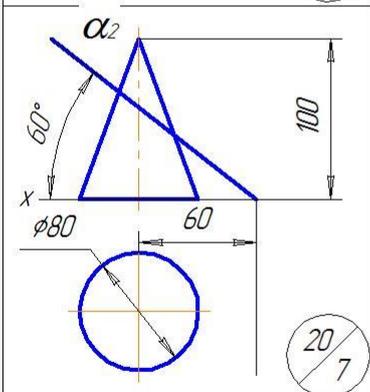
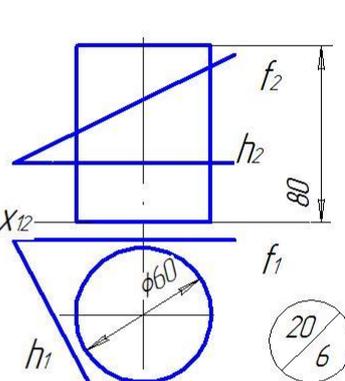
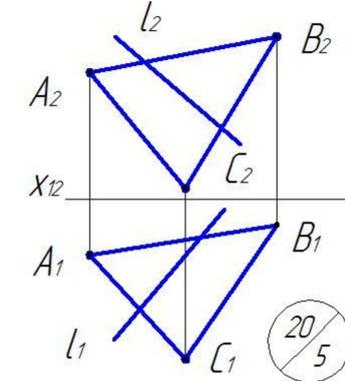
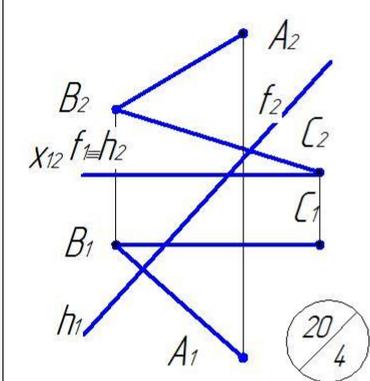
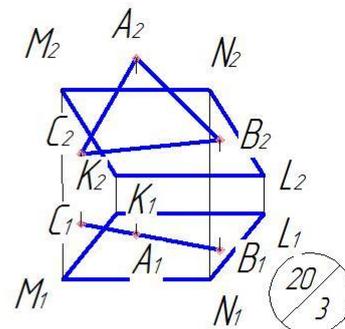
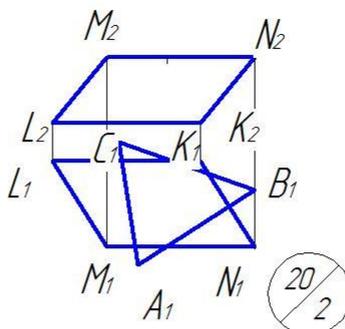
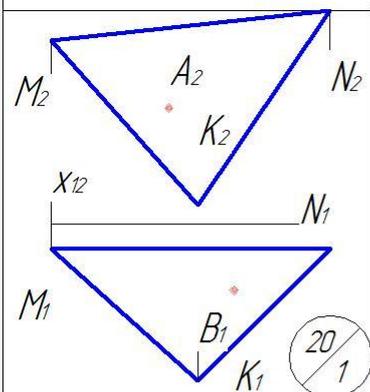
Вариант №18



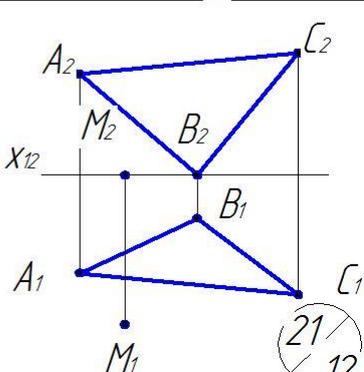
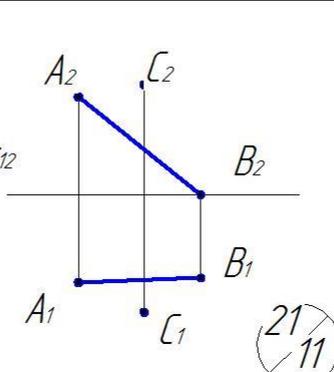
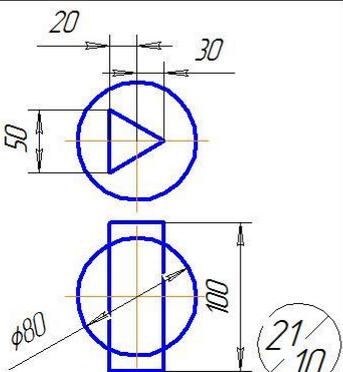
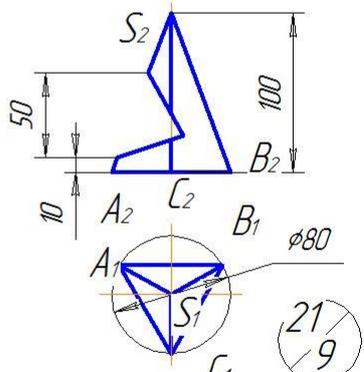
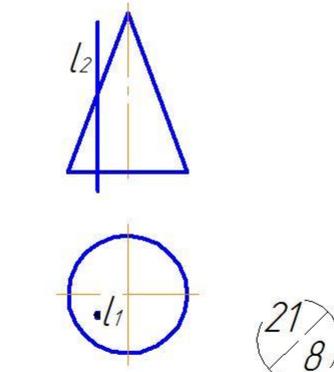
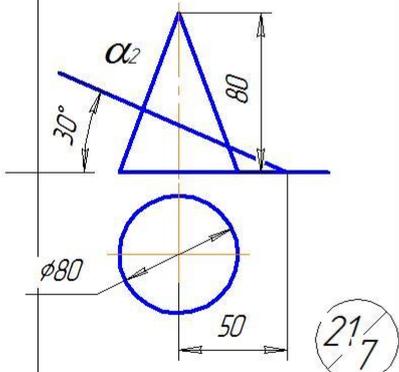
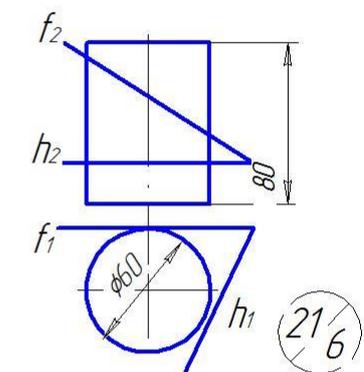
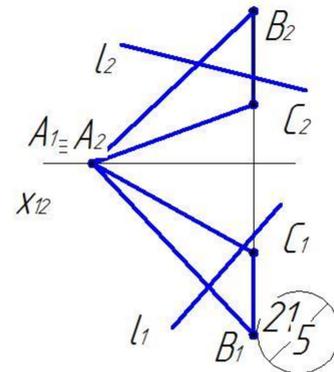
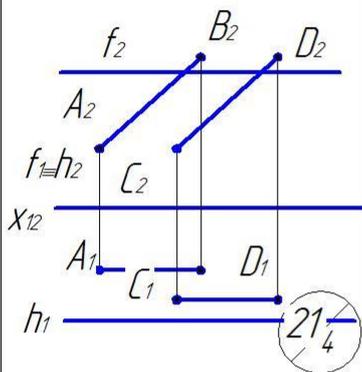
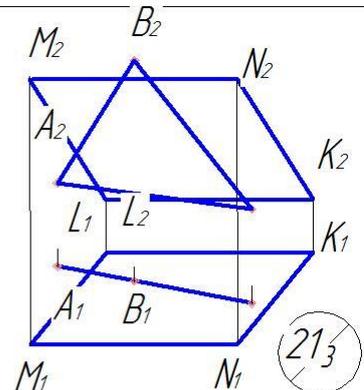
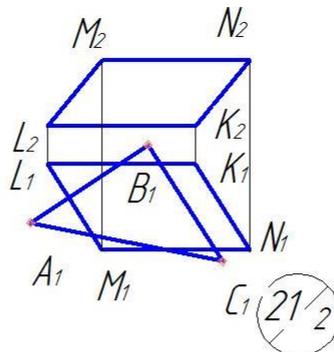
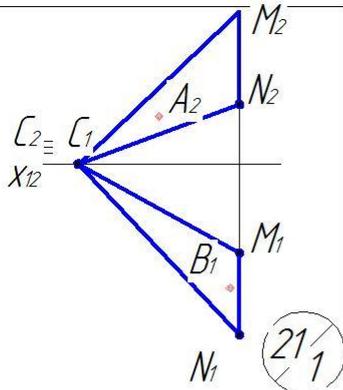
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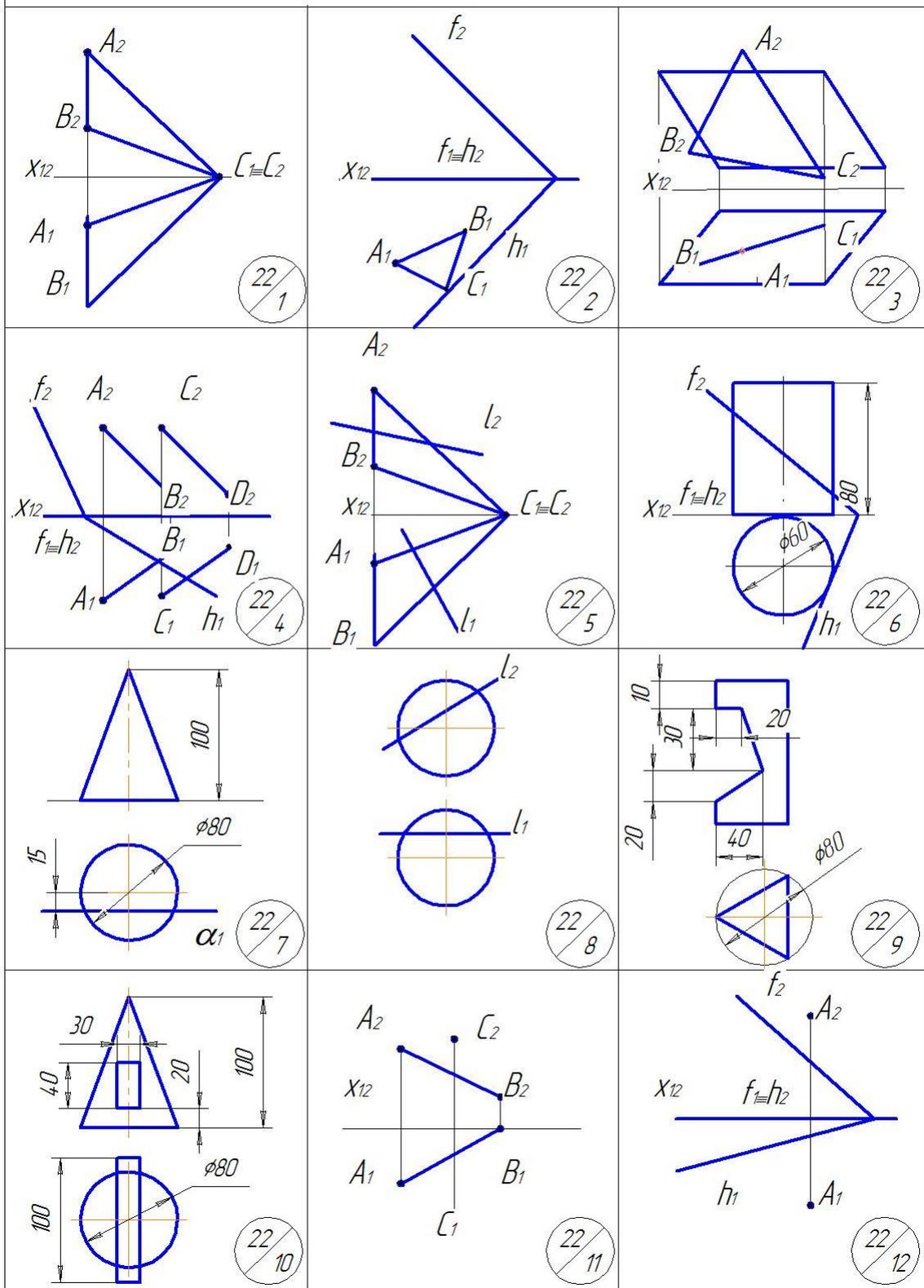
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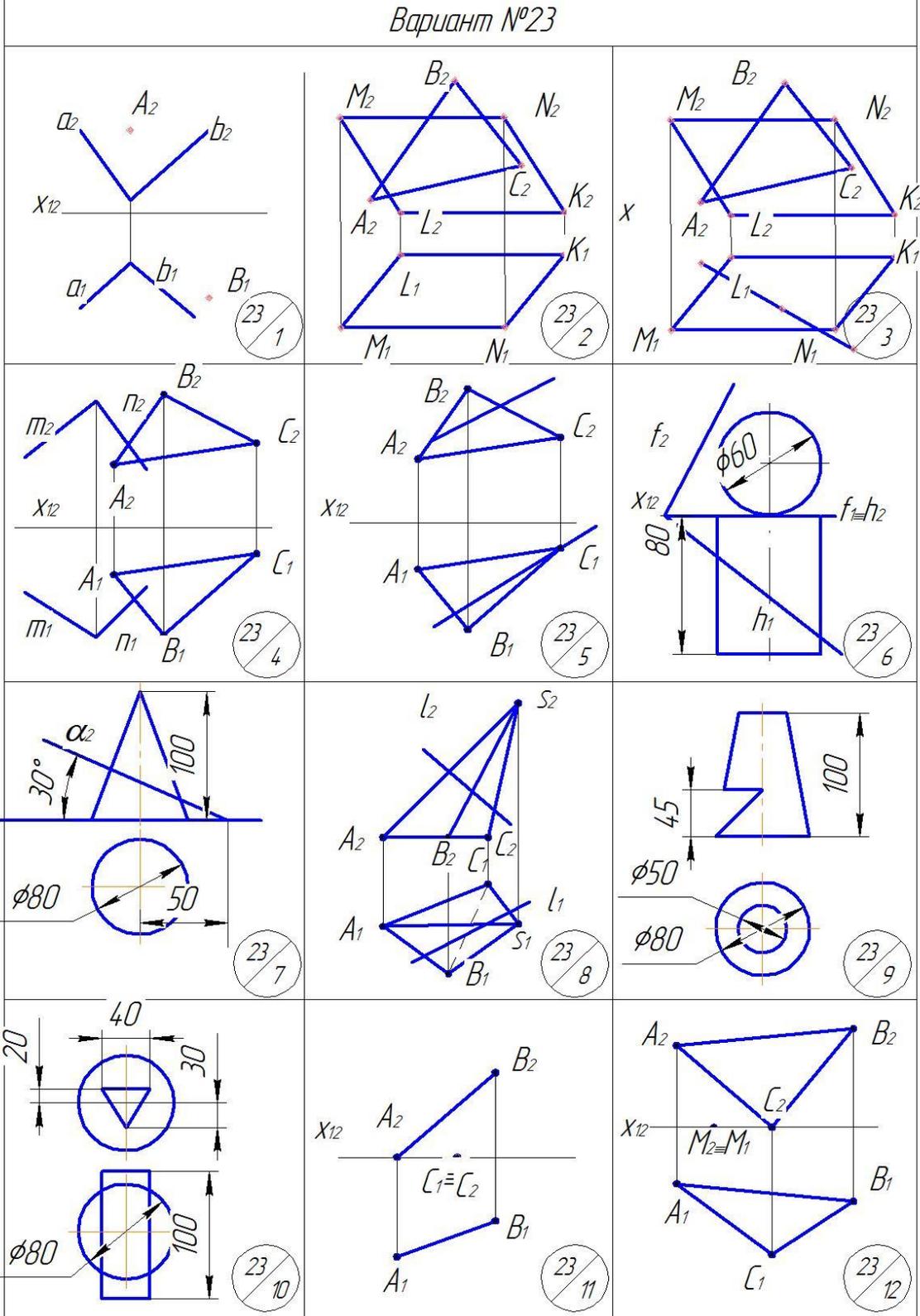
Вариант №21



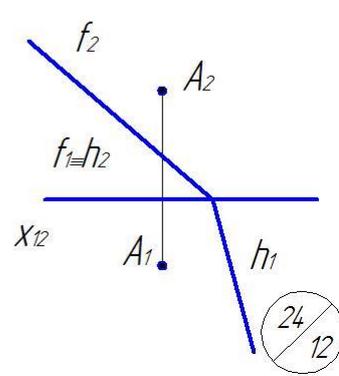
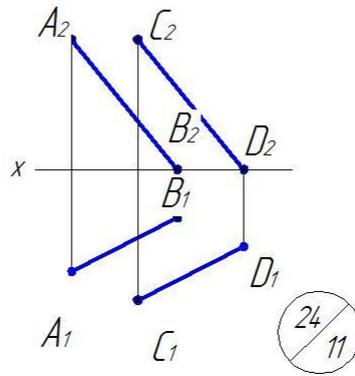
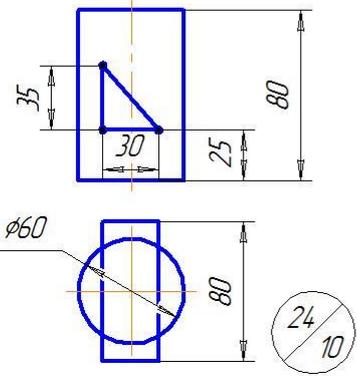
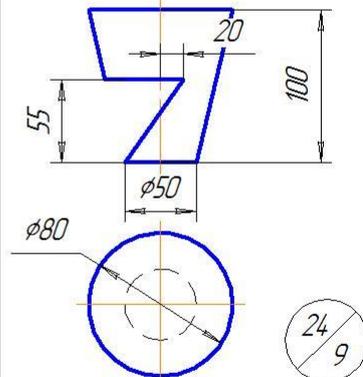
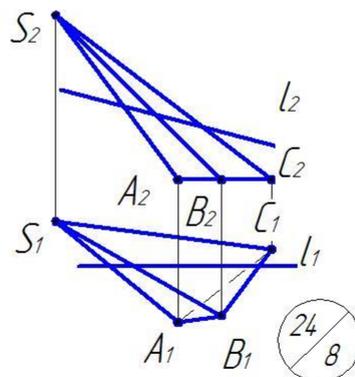
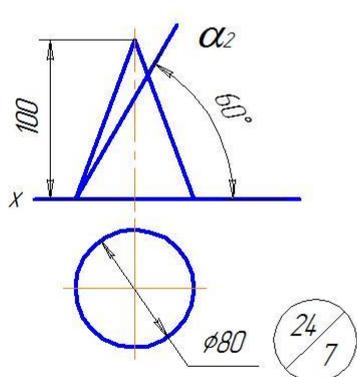
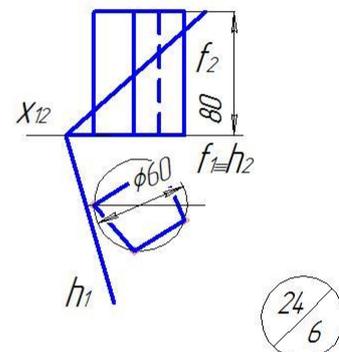
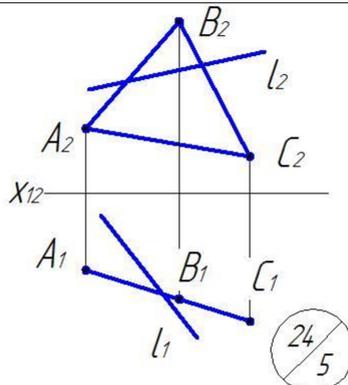
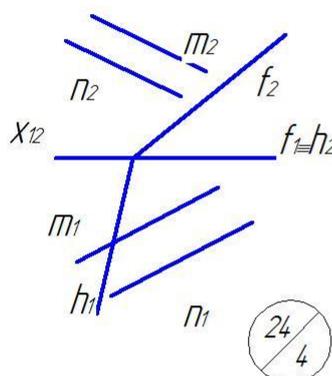
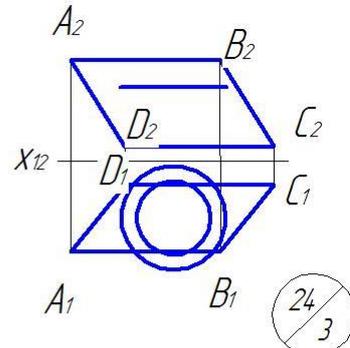
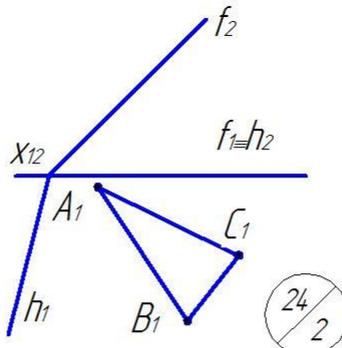
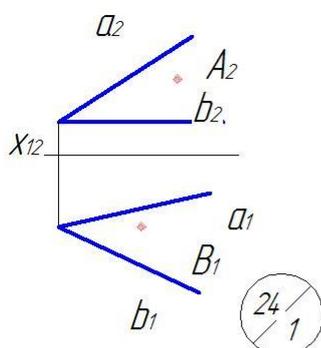
Вариант №22



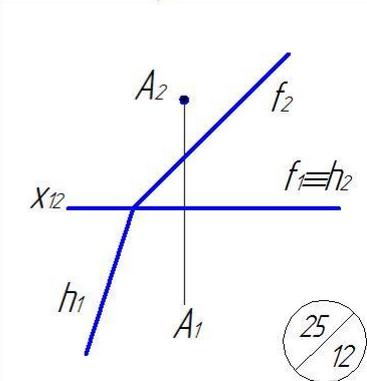
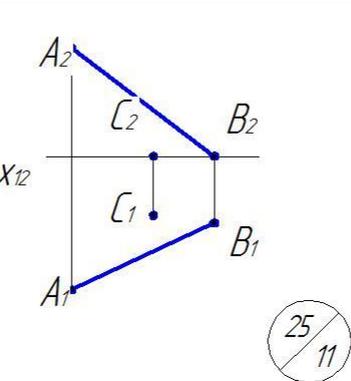
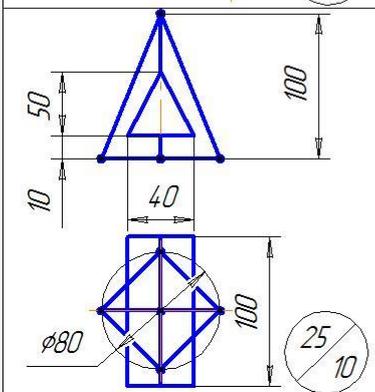
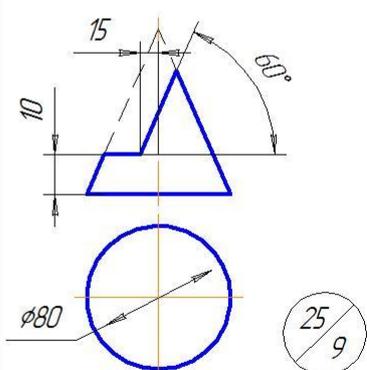
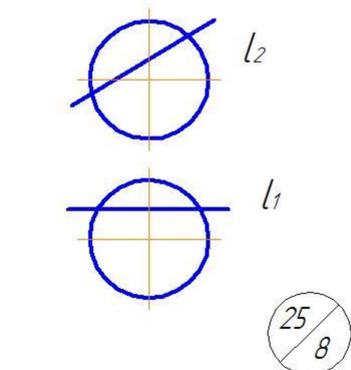
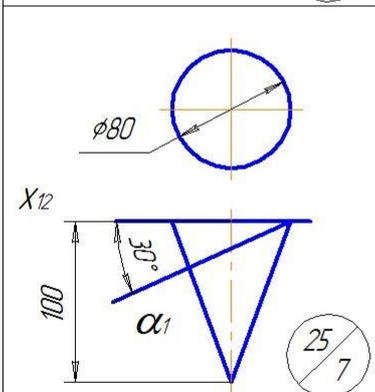
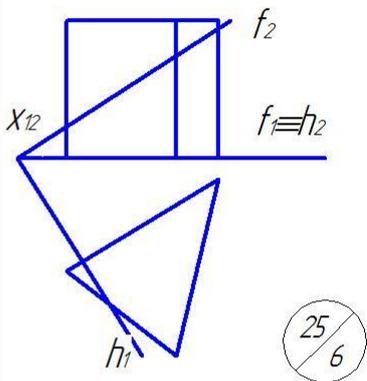
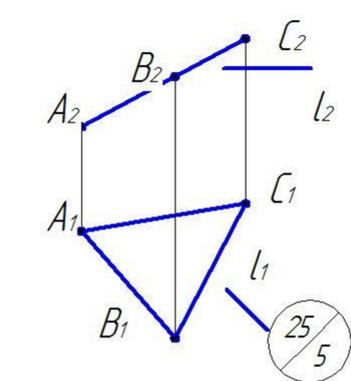
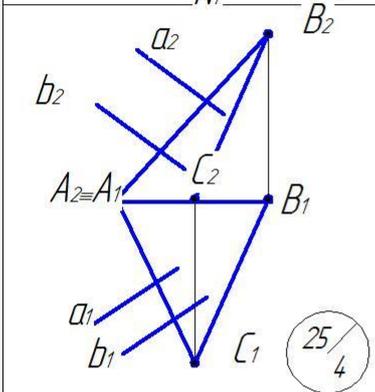
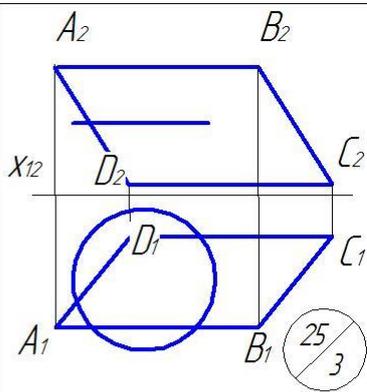
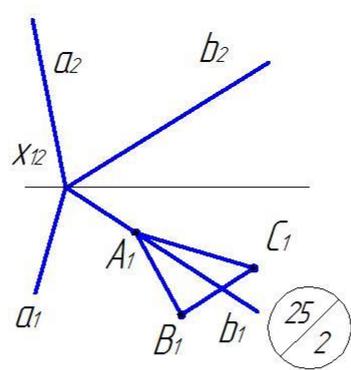
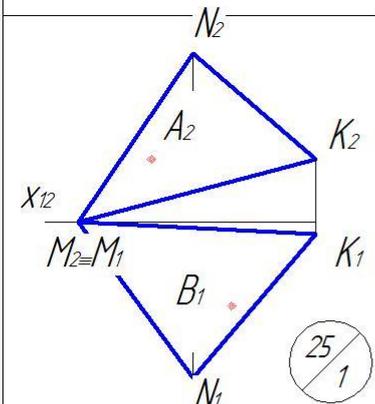
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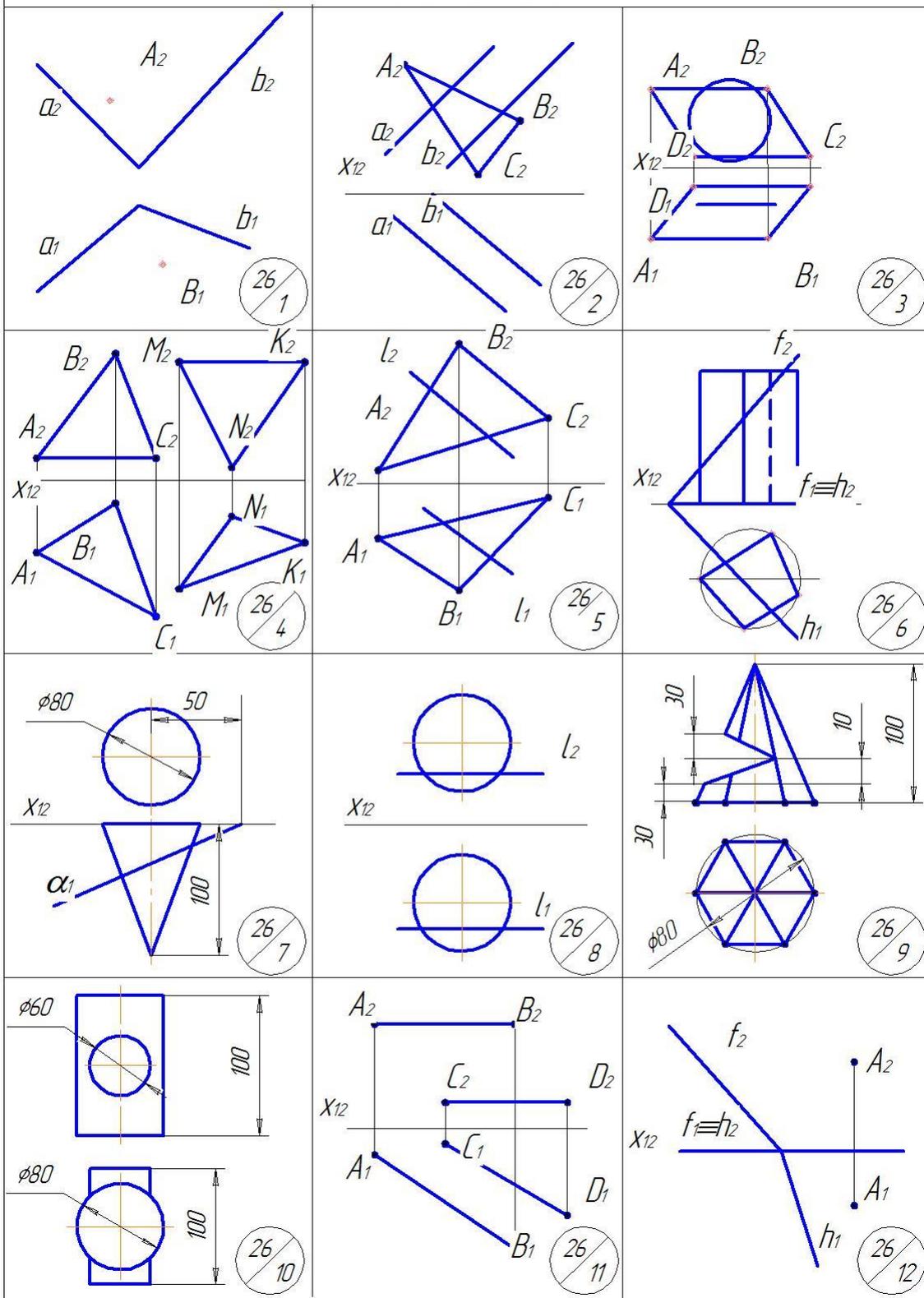
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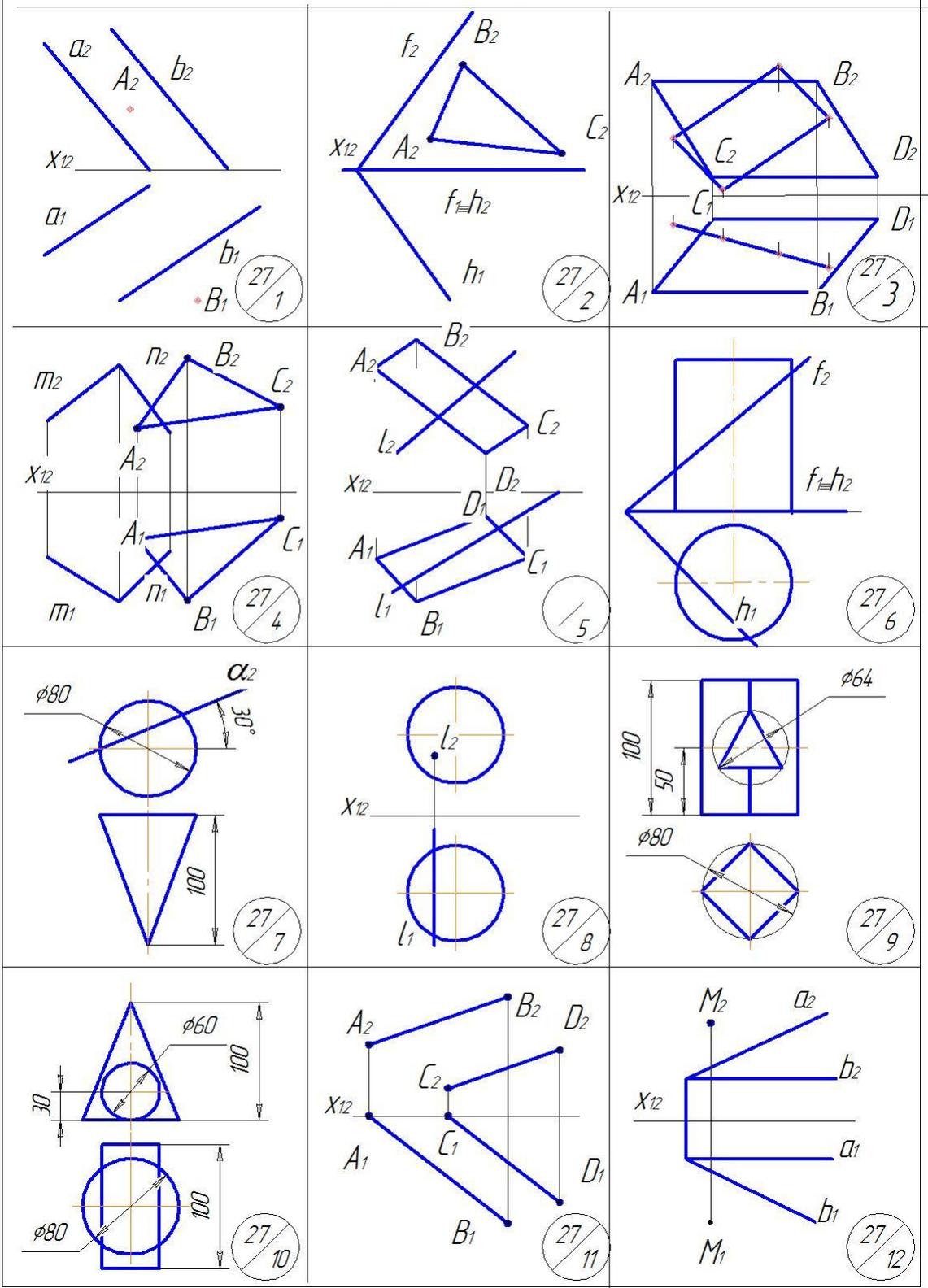
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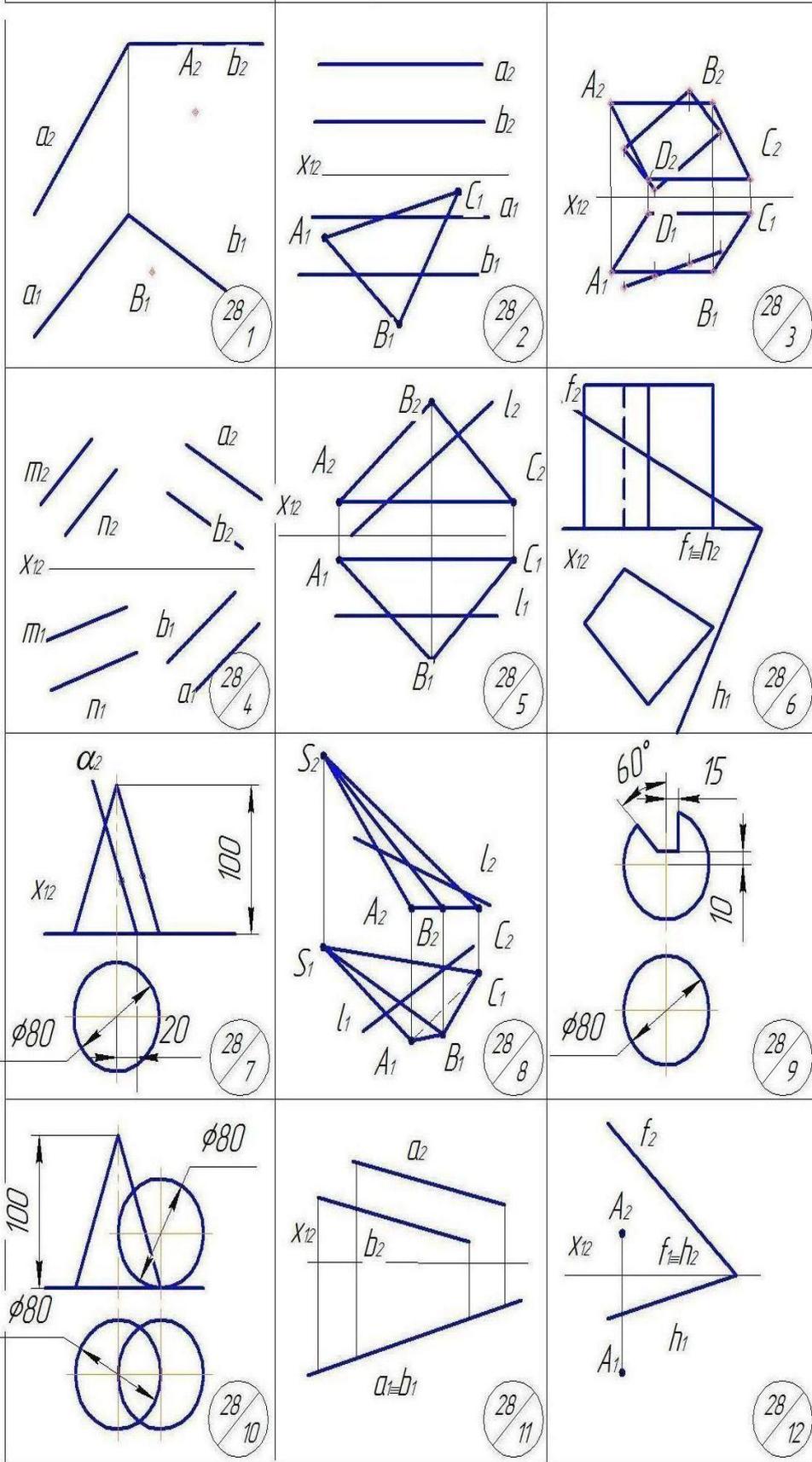
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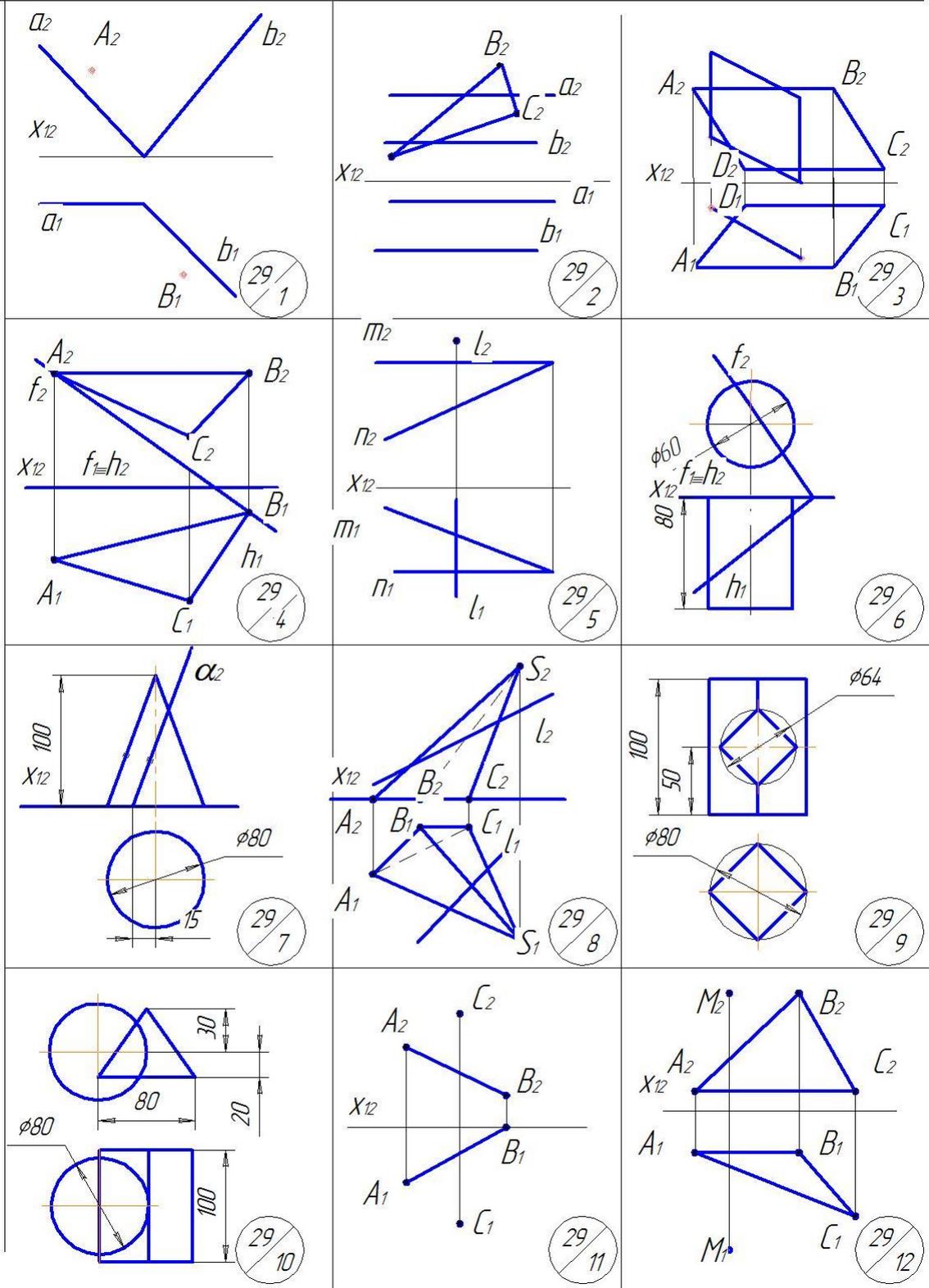
Вариант №27



Вариант №28



Вариант №29



Вариант №30

