

Mavzu: Ko'pyoqlarning tekislik bilan kesishuvi

Bu vazifa qirrali sirtlarni umumiy vaziyatdagi tekislik bilan kesishgan chizig'ini topish, kesim yuzasining haqiqiy kattaligini aniqlash va kesik sirtning yoyilmasini bajarishdan iboratdir.

Bu topshiriqni bajarish uchun talaba 5-jadvaldan o'z variantini oladi va A3 formatda bajaradi.

GRAFIK ISHLARNI BAJARISHGA OID KO'RSATMALAR

Grafik ishni bajarish namunasi 10-shaklda keltirilgan bo'lib, unda og'ma to'rt burchakli $SABCD(S_1A_1B_1C_1D_1; S_2A_2B_2C_2D_2)$ piramidani umumiy vaziyatdagi $P(P_H; P_V)$ tekislik bilan kesishgan chizig'ini topish ko'rsatilgan (10shakl, a).

Yuqorida qo'yilgan masalani yechish uchun piramidaning har bir qirrasining tekislik bilan kesishgan nuqtalari topiladi. Masalan, $SD(S_1D_1; S_2D_2)$ qirraning $P(P_H; P_V)$ tekislik bilan kesishgan nuqtasini topish uchun quyidagicha ish tutamiz: SD qirra orqali frontal proyeksiyalovchi $N(N_H; N_V)$ tekislik o'tkazamiz; berilgan $P(P_H; P_V)$ va o'tkazilgan $N(N_H; N_V)$ tekisliklarning o'zaro kesishish chizig'ini $1(1_1; 1_2)$ va $2(2_1; 2_2)$ nuqtalar orqali aniqlaymiz, ya'ni P tekislikning P_V izi N tekislikning N_V izi bilan kesishib $1(1_1; 1_2)$ nuqtani beradi; tekisliklarning kesishuv chizig'i 12 ning gorizontal 1_12_1 proyeksiyasi SD qirraning gorizontal S_1D_1 proyeksiyasi bilan kesishib izlanayotgan nuqtaning gorizontal K_1 proyeksiyasini beradi. Vertikal bog'lovchi chiziq yordamida uning frontal K_2 proyeksiyasi topiladi.

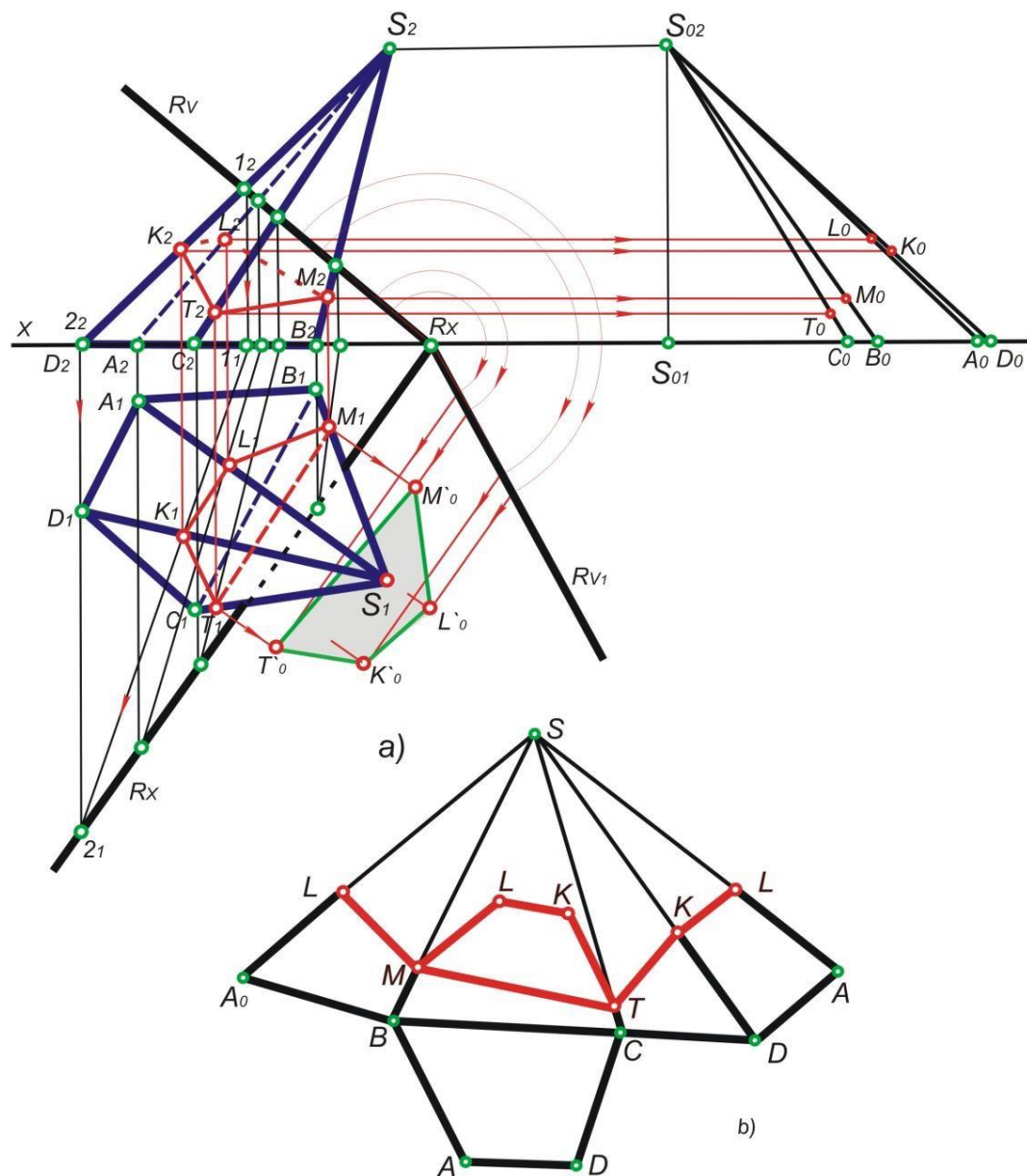
Yuqorida bayon qilingan algoritmdan foydalanib, piramidaning qolgan qirralari: $SA(S_1A_1; S_2A_2)$ da $L(L_1; L_2)$, $SB(S_1B_1; S_2B_2)$ da

$M(M_1;M_2)$ va $SB(S_1B_1;S_2B_2)$ da $T(T_1;T_2)$ nuqtalarni topamiz. Topilgan nuqtalarni birlashtirib,

$KLMT(K_1L_1M_1T_1;K_2L_2M_2T_2)$ piramida kesim yuzasining proyeksiyalarini yasaymiz. Kesim yuzasining haqiqiy kattaligi jipslashtirish usulida aniqlangan boʻlib, u $K'_0L'_0M'_0T'_0$ dir.

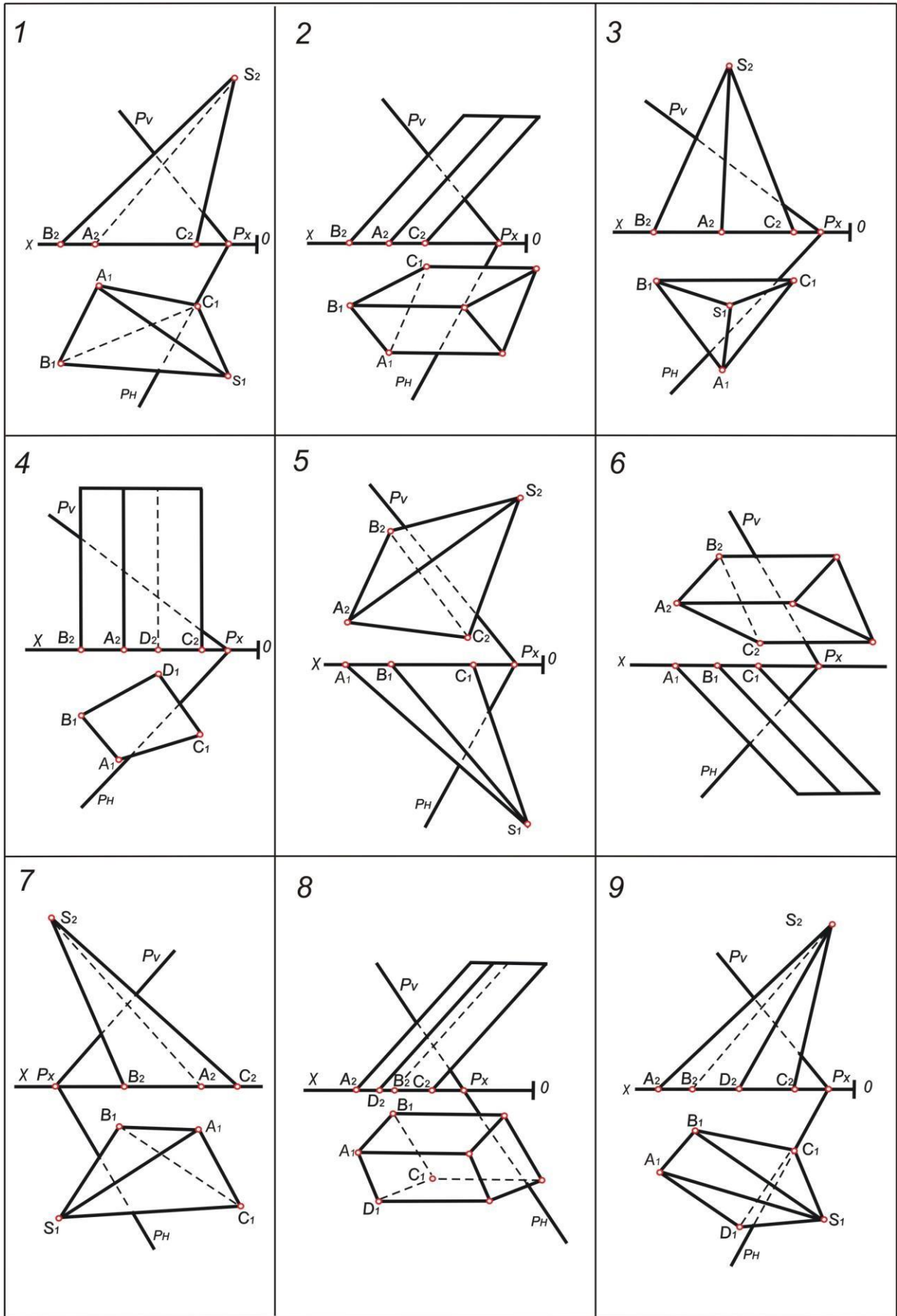
Sirtning yoyilmasini bajarish uchun uning qirralari, asos va kesim yuzalarining haqiqiy kattaliklari zarur boʻladi. Piramida qirralarining haqiqiy uzunliklari tekis-parallel koʻchirish usulida aniqlangan boʻlib, u $S_{02}A_0$; $S_{02}B_0$; $S_{02}C_0$ va $S_{02}D_0$ lardir. Qirralardagi K, L, T va M nuqtalar ham qirralarning haqiqiy uzunliklariga koʻchirib keltirilgan.

Sirtning yoyilmasini bajarish 10-shakl, b) da keltirilgan boʻlib u uchburchakni berilgan uchta tomoniga asosan yasash usulida bajariladi.

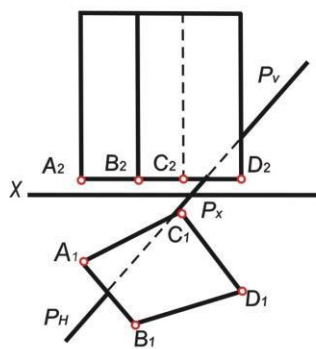


10-shakl.

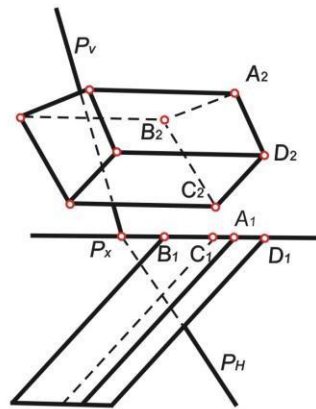
Ko`pyoqni tekislik bilan kesishuvi					Top-q № 10
Chizdi	Qabulova M	Imzo	12.11.19	Texnika 191 QXALTE	Variant № 12
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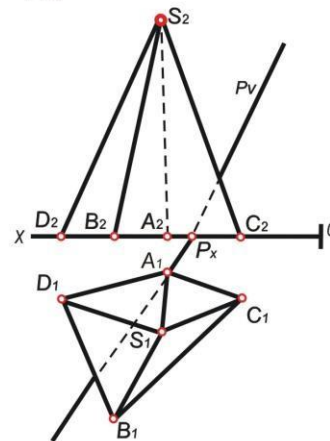
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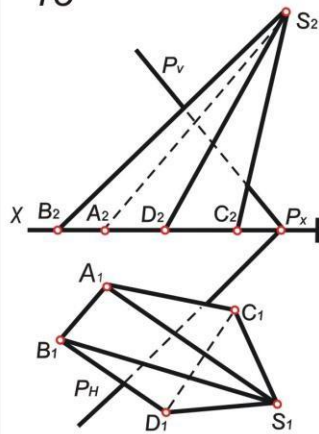
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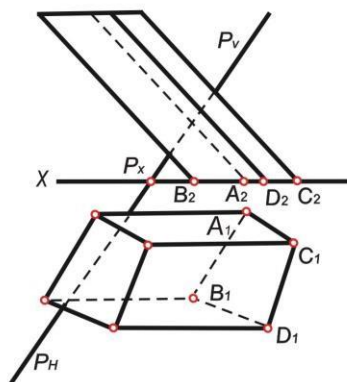
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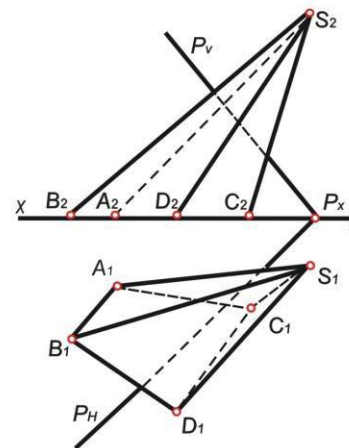
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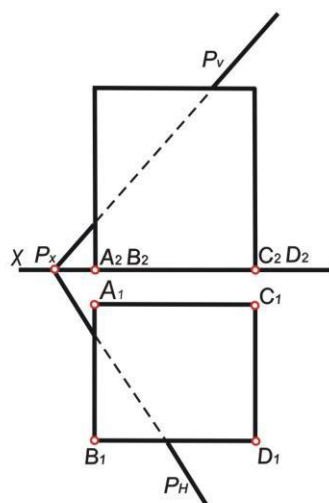
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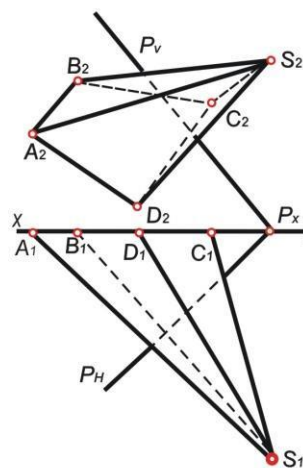
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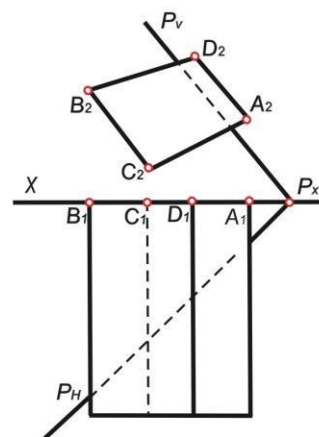
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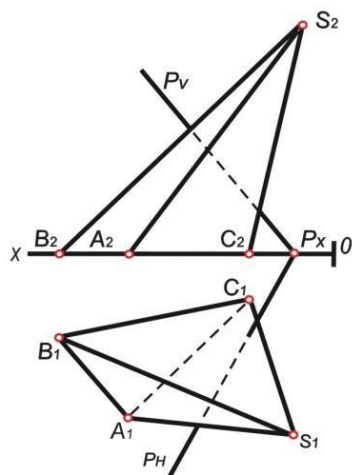
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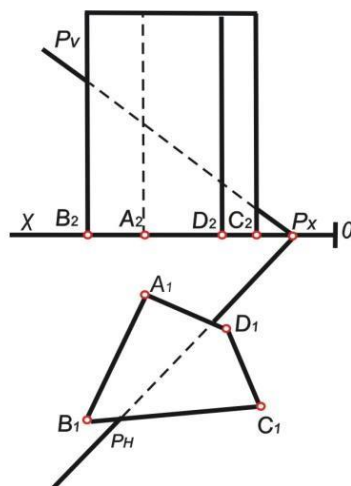
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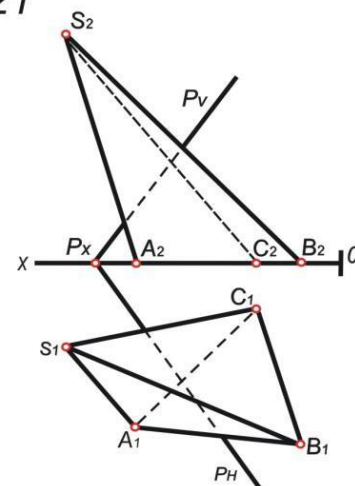
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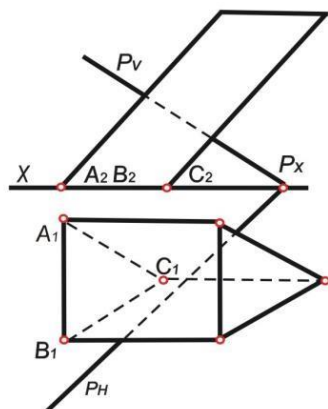
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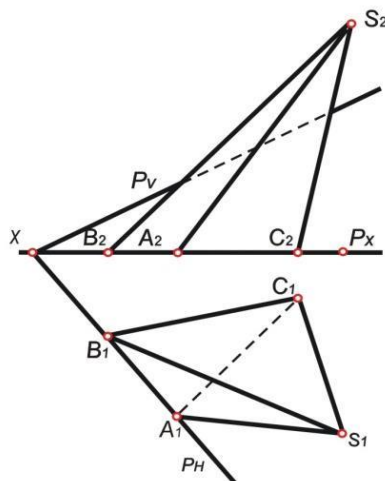
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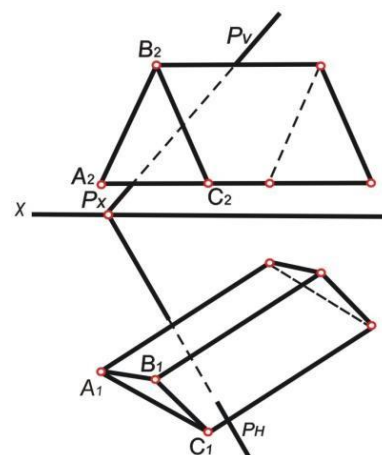
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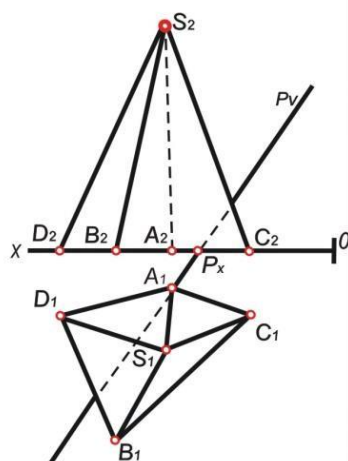
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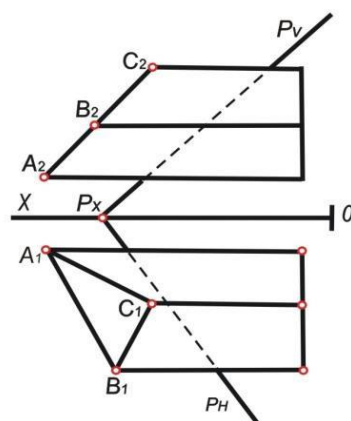
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