

Mavzu: Sirtlarning umumiy vaziyatdagi tekislik bilan kesishuvi

Chiziqli sirtning umumiy vaziyatdagi tekislik bilan kesishish chizig,,i proyeksiyalari topilsin va kesim yuzasining haqiqiy kattaligi aniqlansin.

Topshiriqni bajarish uchun variantlar 6-jadvaldan olinadi. Grafik ishning bajarilishi namunasi 11-shaklda keltirilgan.

Grafik ishlarni bajarishga doir ko‘rsatmalar

Chiziqli sirtni tekislik bilan kesishish chizig,,ini topish uchun uning har bir yasovchisi (to,,g,,ri chiziq)ni shu tekislik bilan kesishish nuqtalarini topish kerak bo,,ladi.

Topilgan nuqtalar ketma-ket birlashtirilib, kesim chizig,,i va kesim yuzasi hosil qilinadi.

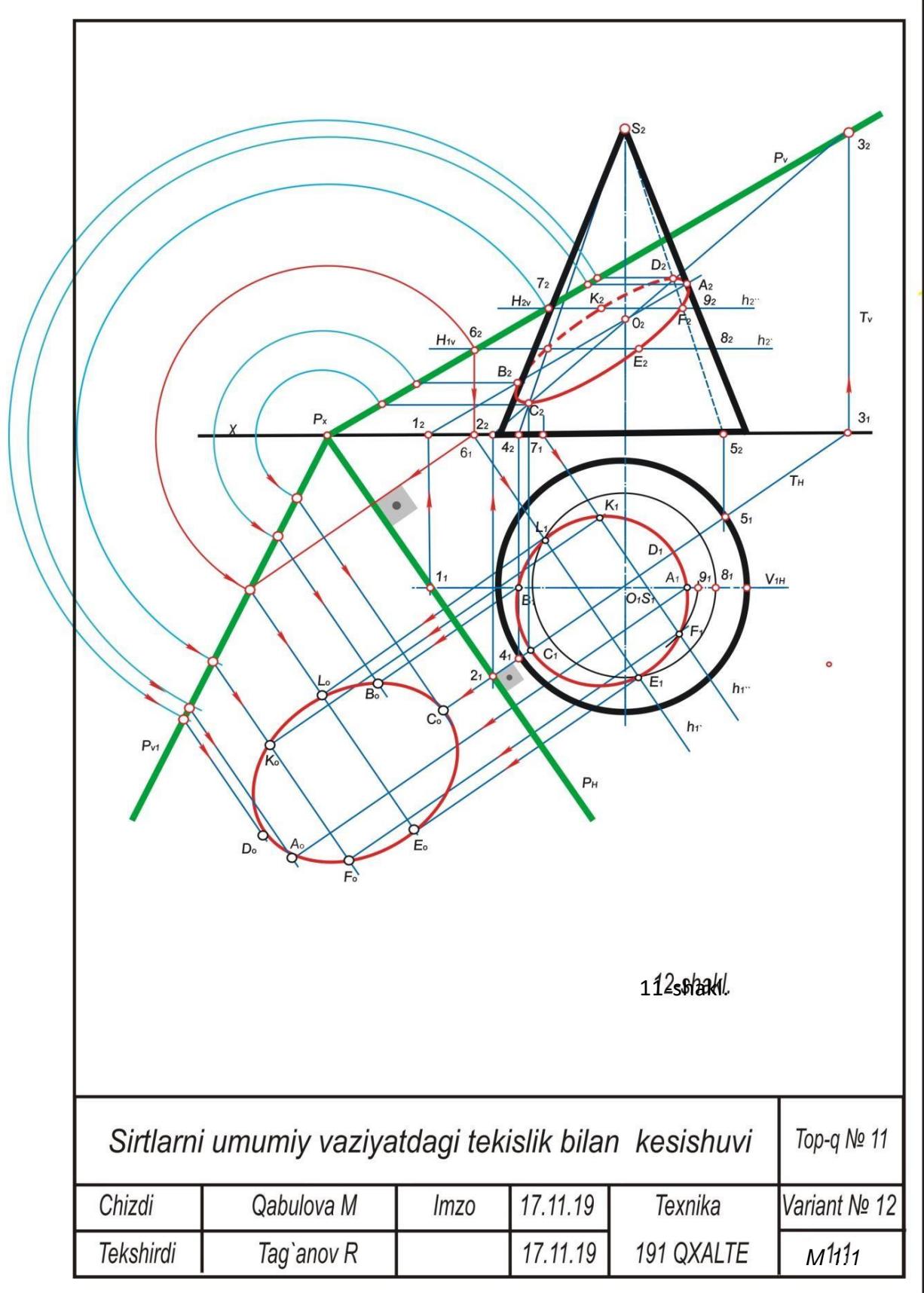
Ko,,rilayotgan misolda konus sirtining umumiy vaziyatdagi $P(P_H, P_V)$ tekislik bilan (11-shakl) kesishish chizig,,ini topish ko,,rsatilgan.

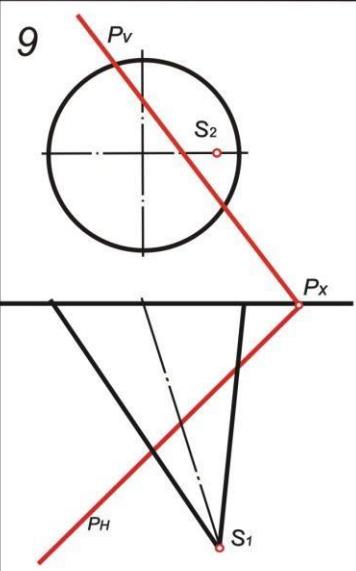
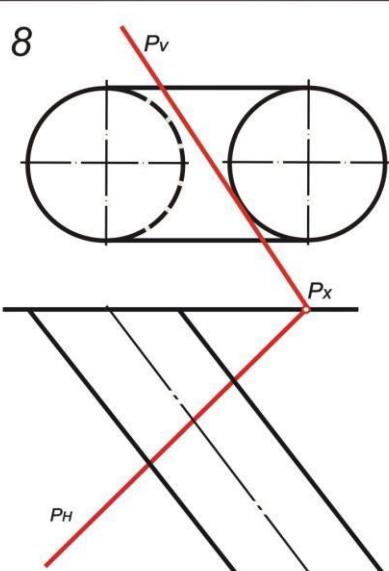
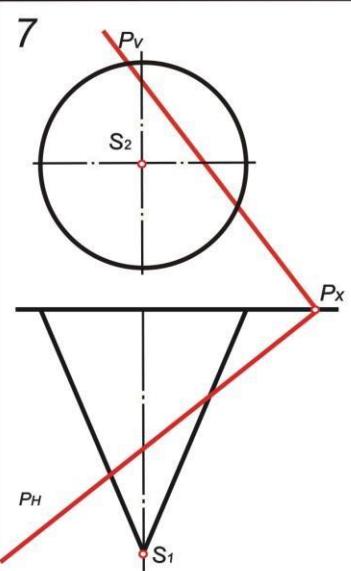
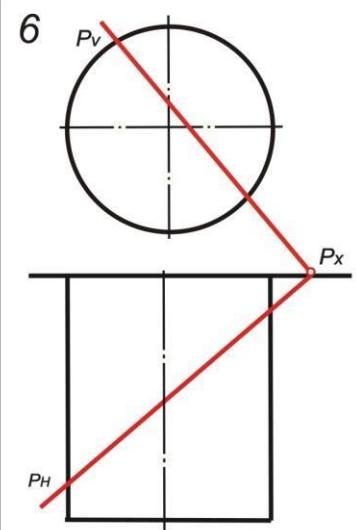
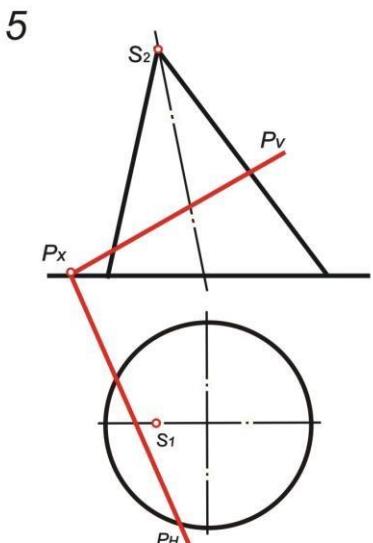
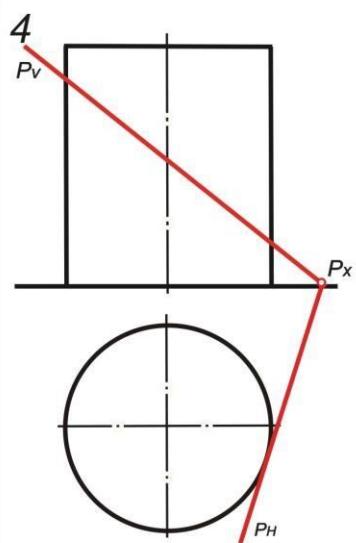
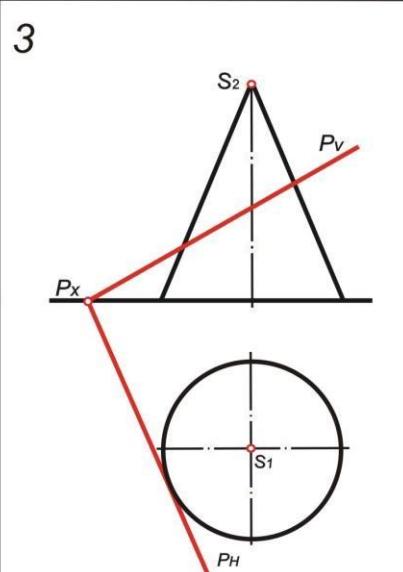
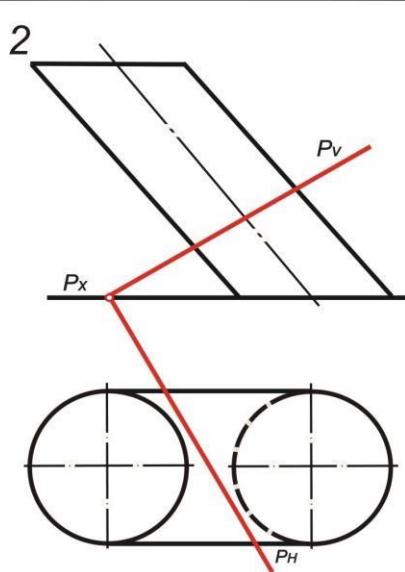
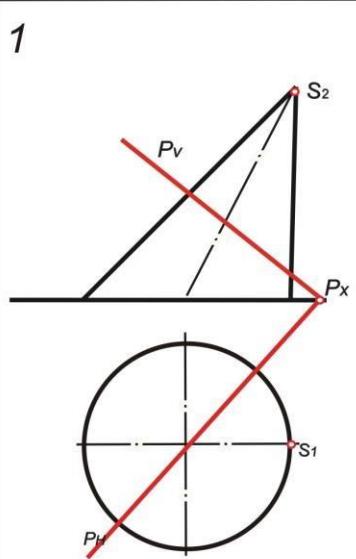
Hosil bo,,ladigan egri chiziqning asosiy (xarakterli) nuqtalarini topamiz. Buning uchun sirtning o,,qi orqali kesuvchi tekislikka perpendikular bo,,lgan $T(T_H; T_V)$ tekislik o,,tkazib $C(C_1; C_2)$ va $D(D_1; D_2)$ nuqtalar topiladi, bu nuqtalar egri chiziqning eng pastki va eng yuqorigi nuqtalari bo,,ladi.

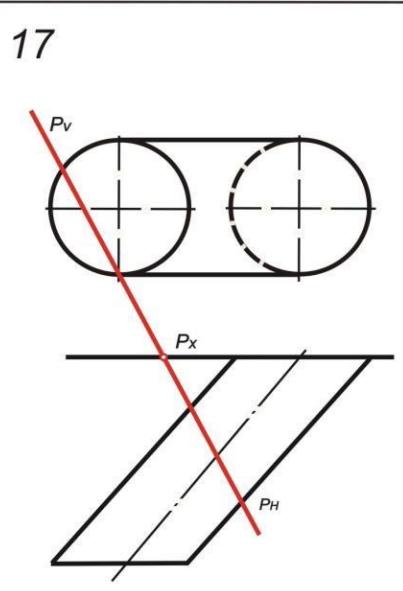
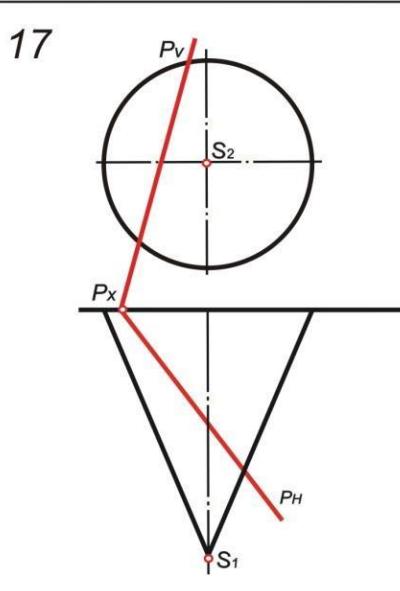
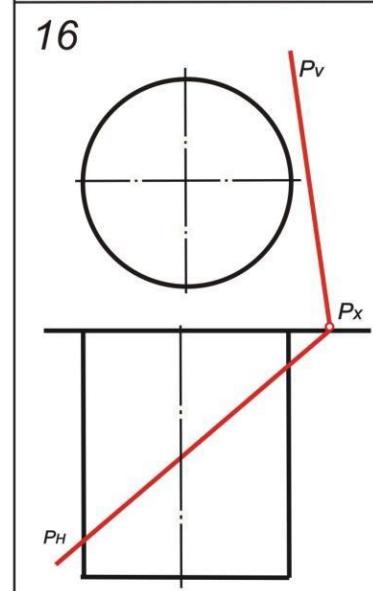
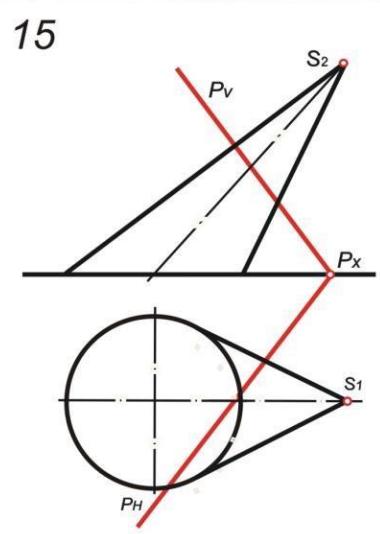
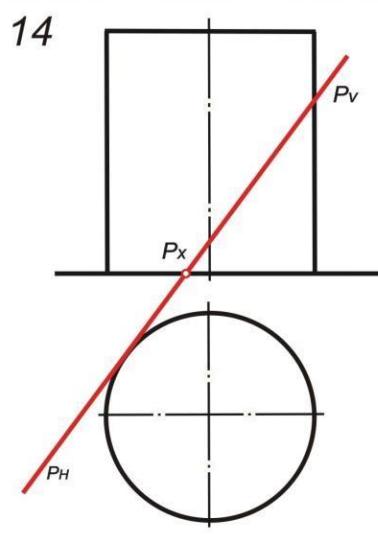
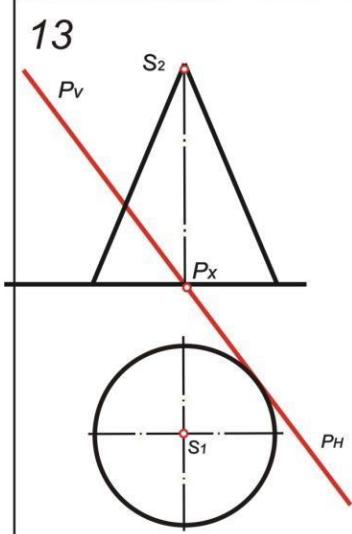
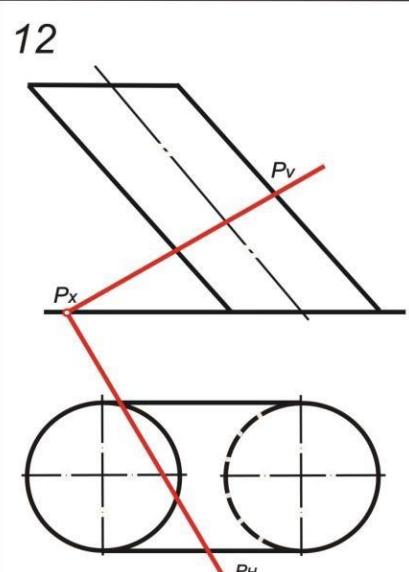
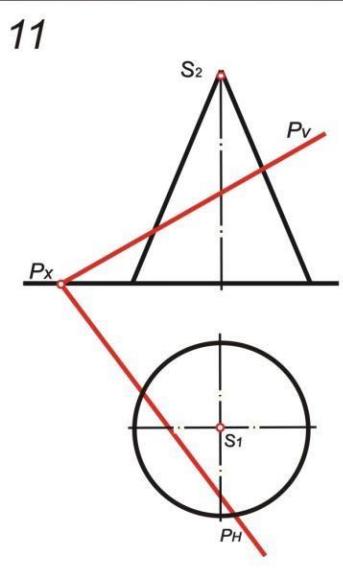
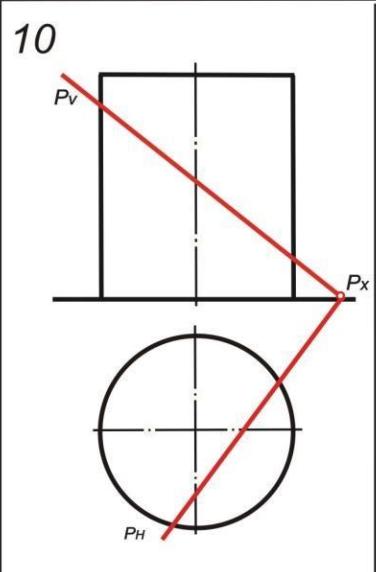
Oraliq nuqtalarini topish uchun sirt ustida bir nechta to,,g,,ri chiziqli yasovchilari tanlanadi va ularni berilgan tekislik bilan kesishish nuqtalari topiladi.

Mazkur misolda, konus doiraviy konus bo,,lgani uchun, konus sirti H ga parallel bo,,lgan H_1, H_2 kesuvchi tekisliklardan foydalanilgan. H_1 tekislikning frontal H_{1V} izi o,,tkazilgan. Bu tekislik konusni O_1B_1 radiusli aylana bo,,yicha, $P(P_H, P_V)$ tekislik esa $6(6_1; 6_2)$ nuqta orqali o,,tuvchi $h(h_1; h_2)$ gorizontal chizig,,i bo,,yicha kesadi. Bu chiziqlar o,,zaro kesishib izlanayotgan $E(E_1; E_2)$ va $L(L_1; L_2)$ nuqtalarni beradi.

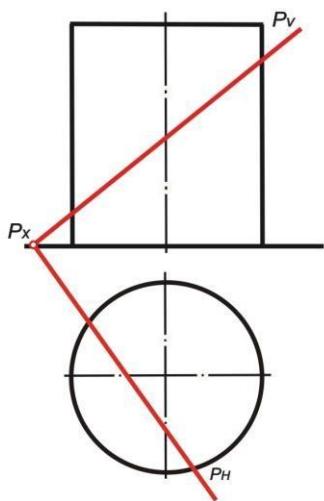
Shu jarayonni takrorlab, hosil bo,,ladigan egri chiziqning qolgan nuqtalari topiladi va ketma-ket birlashtiriladi. Kesim yuzasining haqiqiy kattaligi jipslashtirish usulida topiladi.



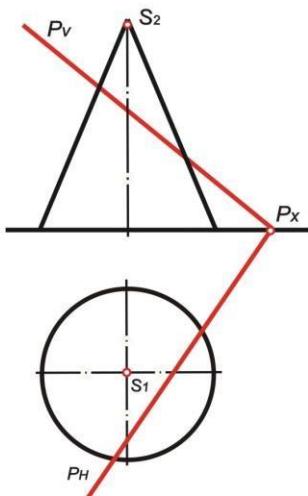




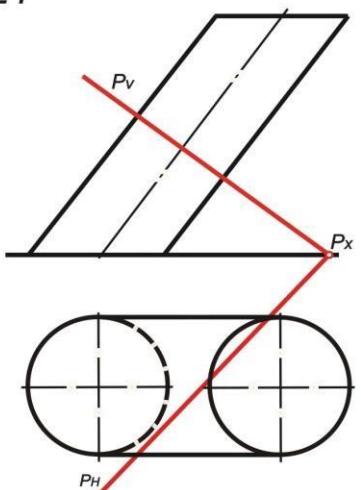
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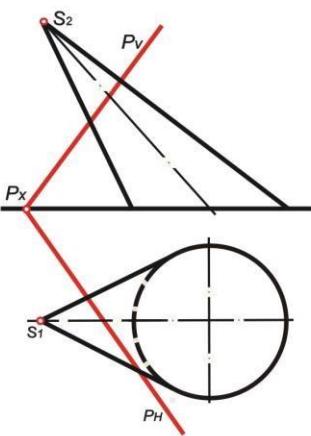
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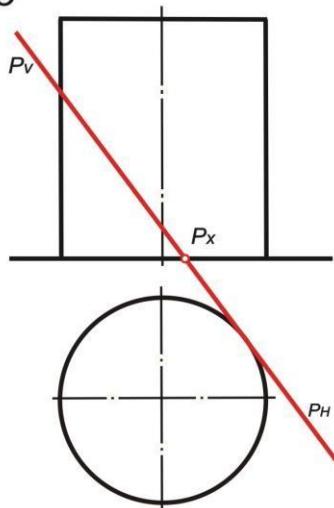
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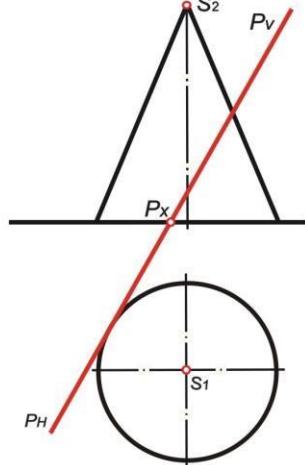
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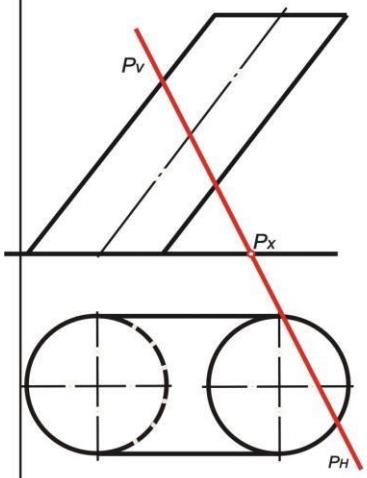
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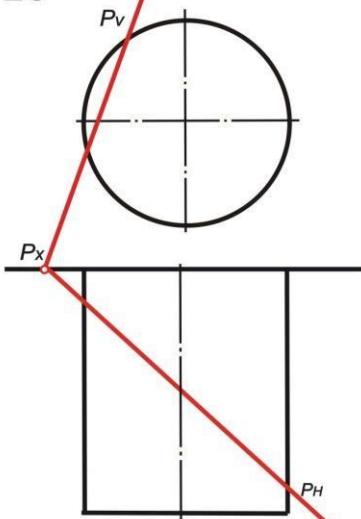
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