

EXPRESSÃO GRÁFICA

AXONOMETRIA ORTOGONAL



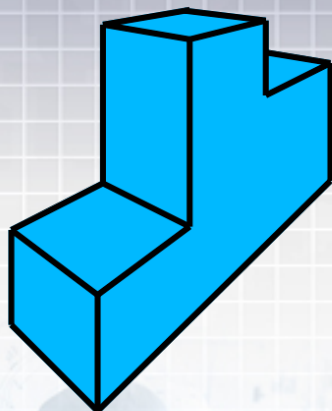
PERSPECTIVAS

Perspectiva é uma forma de representar graficamente objetos tridimensionais através de uma única projeção.

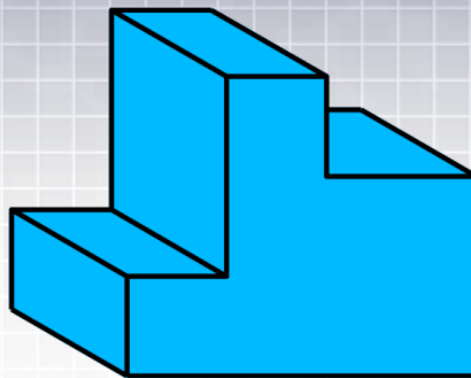


PERSPECTIVAS

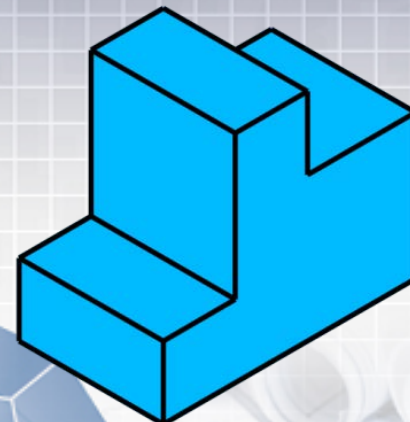
Ela pode ser feita de várias maneiras, com resultados diferentes, que se assemelham mais ou menos à visão humana



CÔNICA



CAVALEIRA



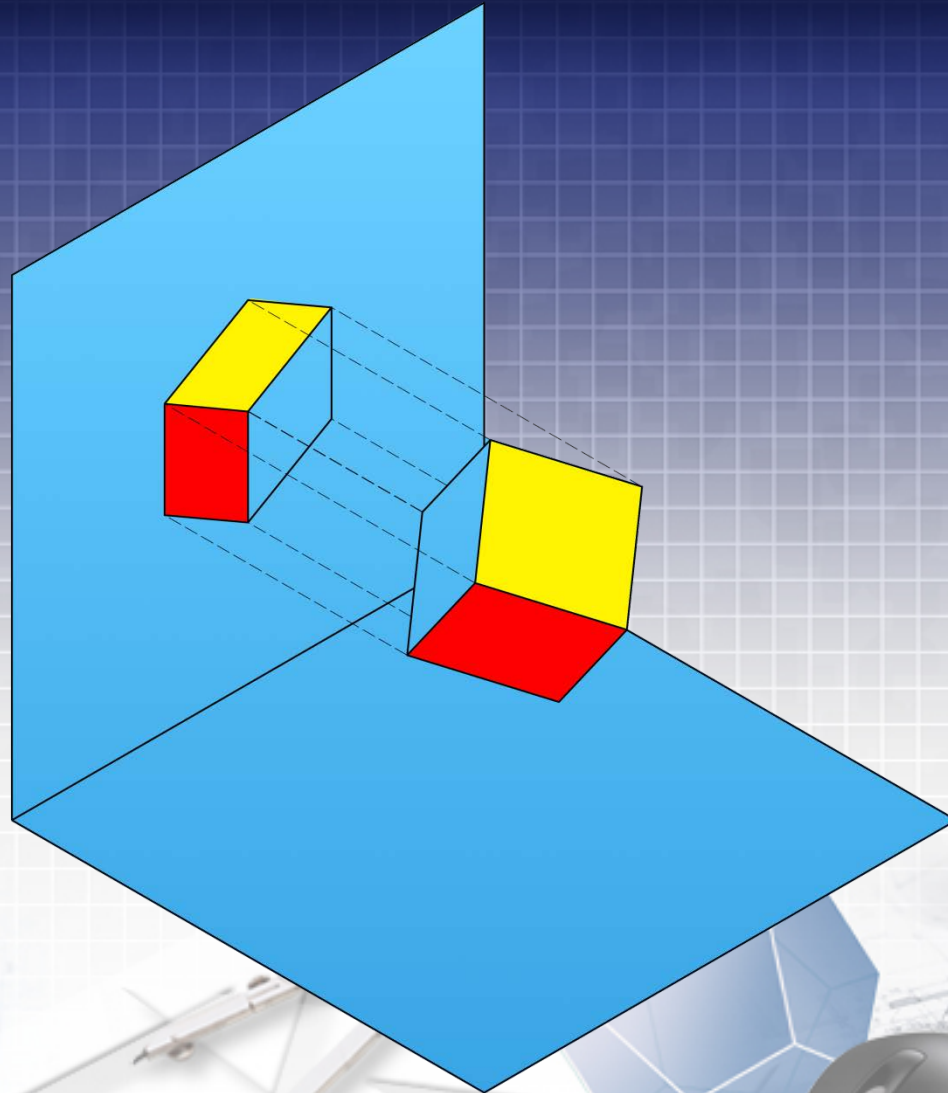
AXONOMETRIA

AXONOMETRIA

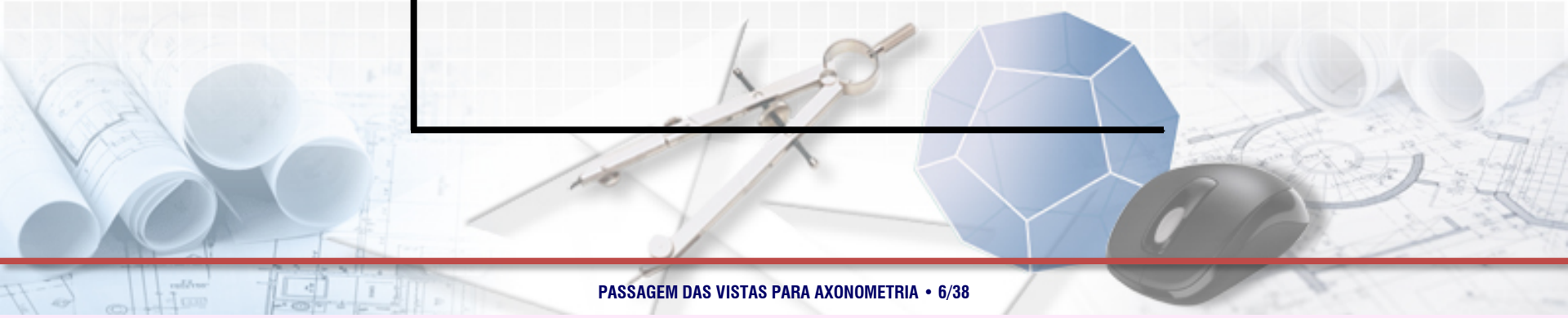
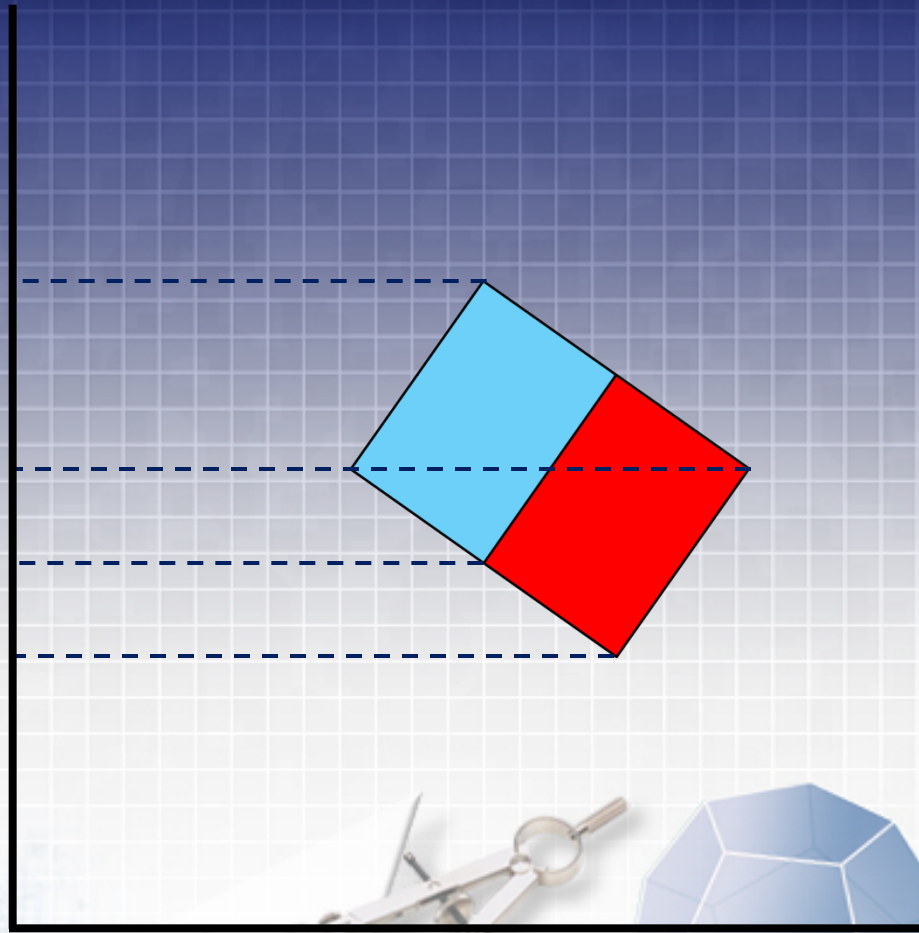
- Utiliza a projeção **Cilíndrica Ortogonal**.
- Permite fazer medições no desenho, mas só, para arestas paralelas aos eixos.
- Deforma o objeto, mas é mais simples de visualizar que as vistas ortogonais.



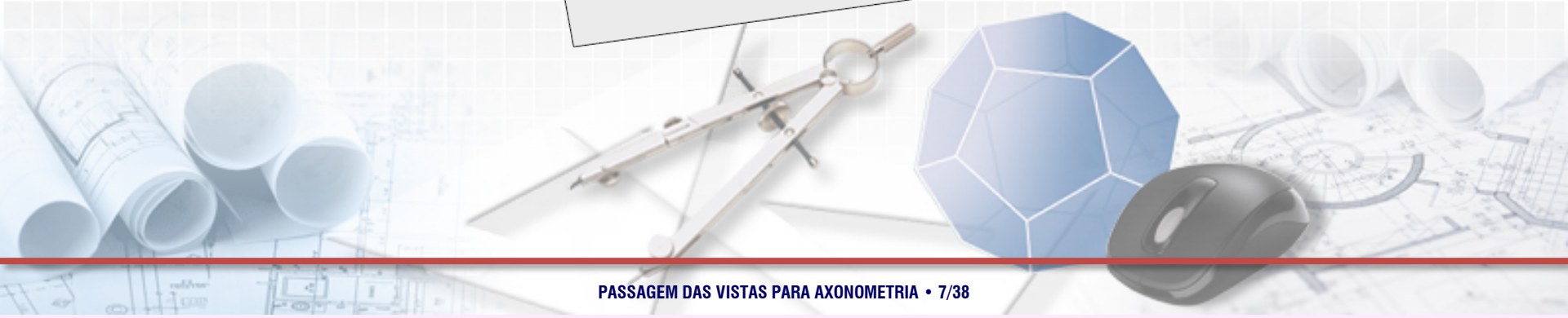
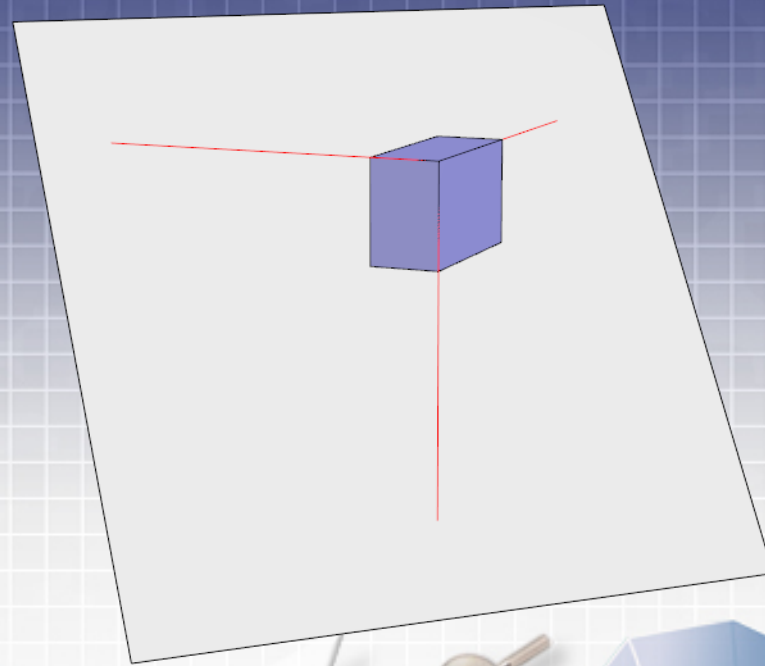
AXONOMETRIA



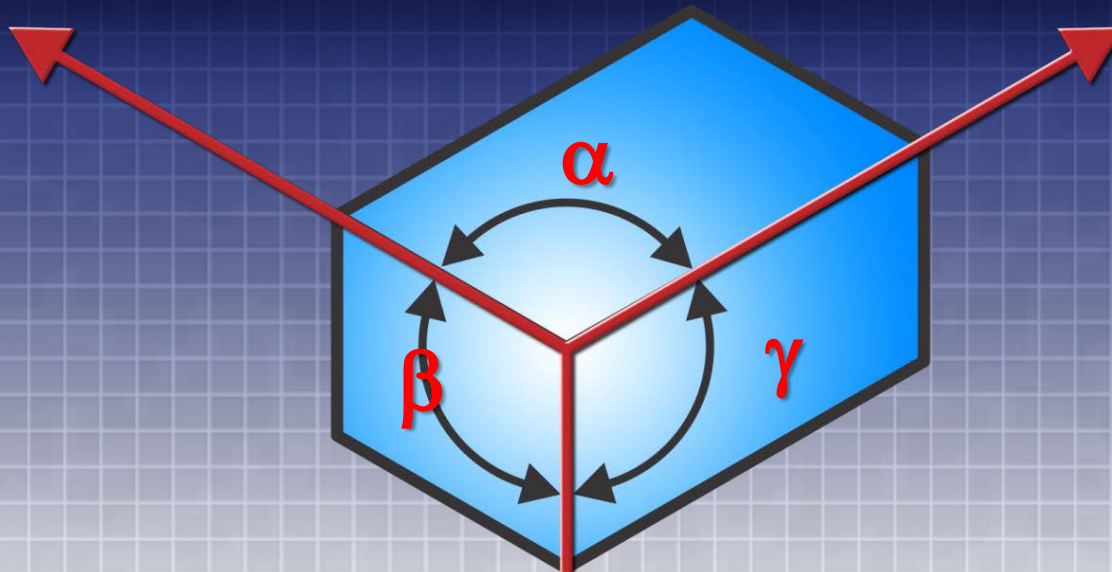
AXONOMETRIA



AXONOMETRIA



AXONOMETRIA



ISOMETRIA

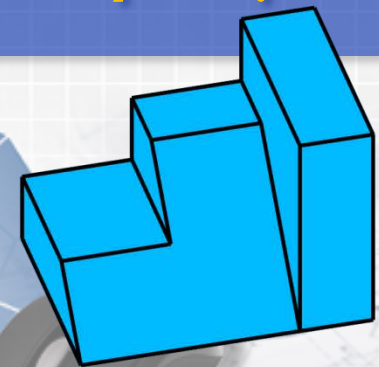
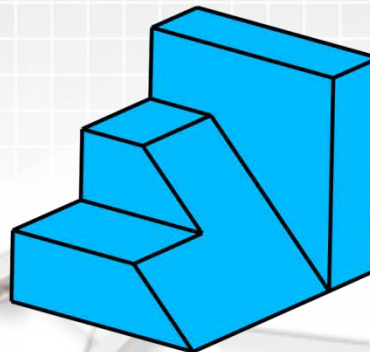
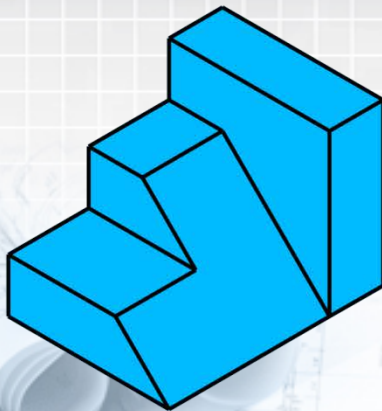
$$\alpha = \beta = \gamma$$

DIMETRIA

$$\alpha = \gamma \neq \beta$$

TRIMETRIA

$$\alpha \neq \beta \neq \gamma$$

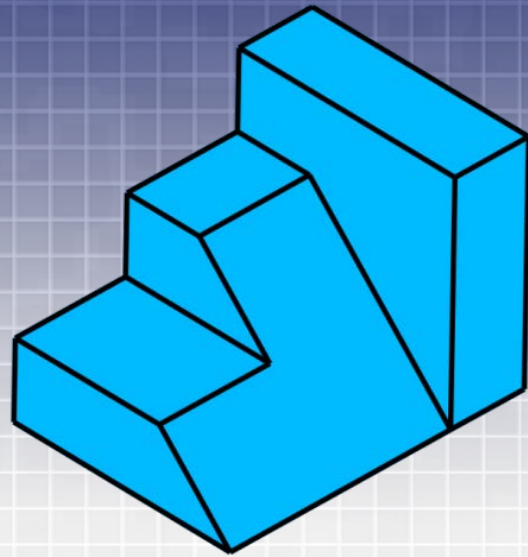


ISOMÉTRICA

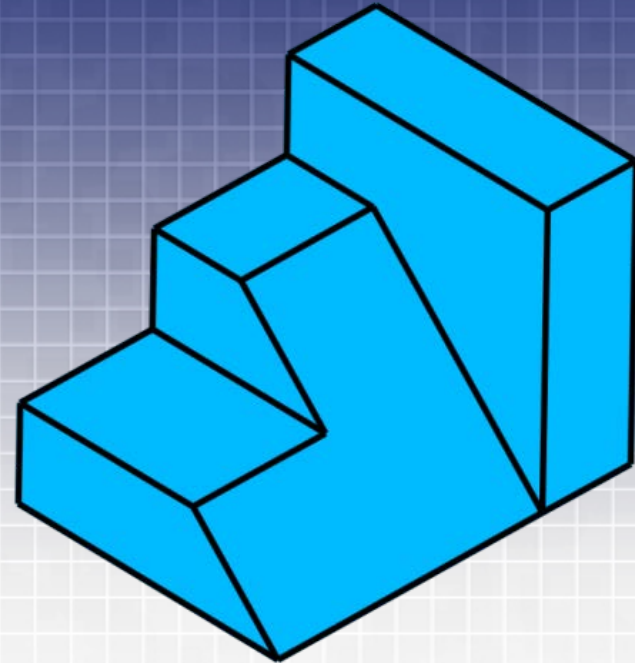
- **Perspectiva Isométrica Real ou Exata**
- **Coeficiente de redução é 0,816**
- **Na cotagem as dimensões são reais.**



ISOMÉTRICA



**REAL
(COM REDUÇÃO)**



**SIMPLIFICADA
(SEM REDUÇÃO)**

DIMÉTRICA

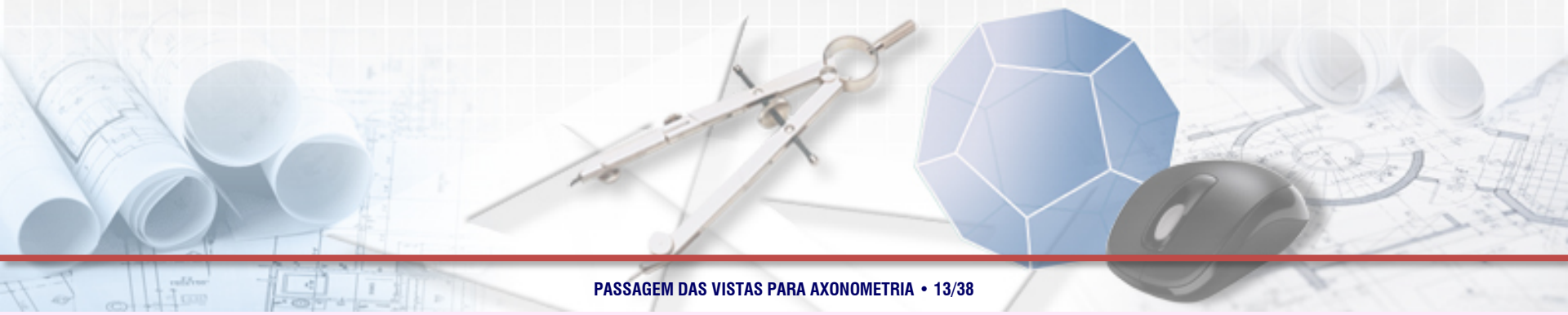
Ângulo a	Ângulo b	Eixo A	Eixo B	Eixo C
7°	42°	1	1	0,5
10° 22'	39° 49'	1	1	0,6
14° 10'	37° 55'	1	1	0,7
18° 40'	35° 40'	1	1	0,7

TRIMÉTRICA

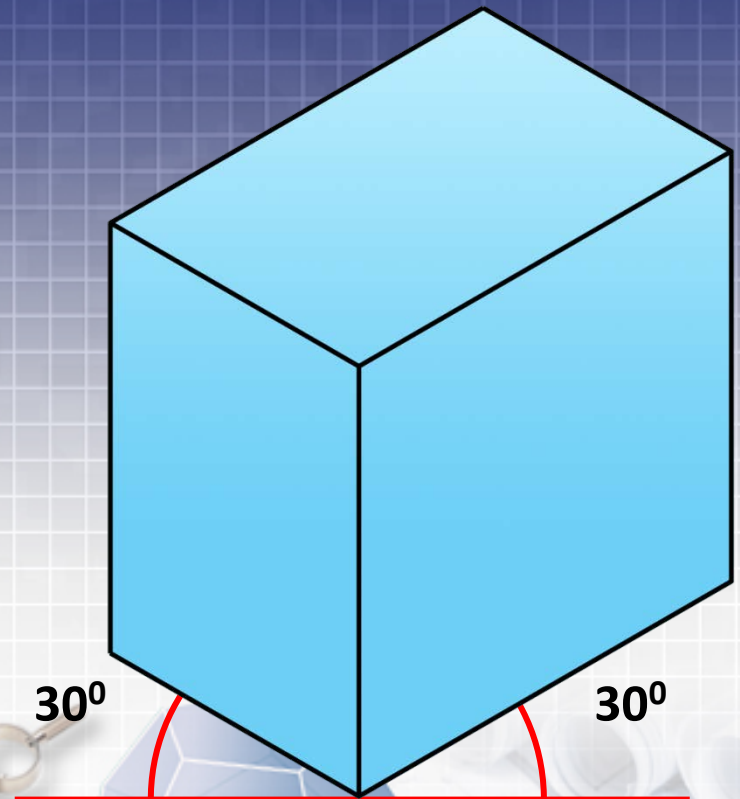
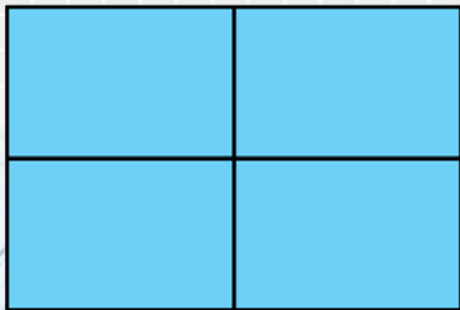
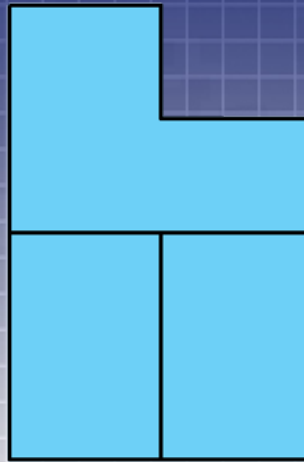
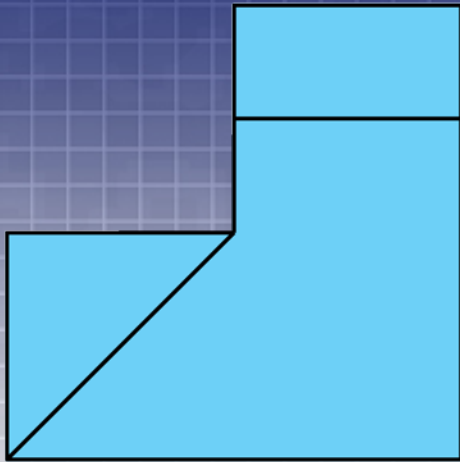
Ângulo a	Ângulo b	Eixo A	Eixo B	Eixo C
5° 10'	17° 50'	1	0,9	0,5
9° 50'	24° 30'	1	0,9	0,6
14° 30'	26° 40'	1	0,9	0,7
11° 50'	16°	1	0,9	0,7

EXPRESSÃO GRÁFICA

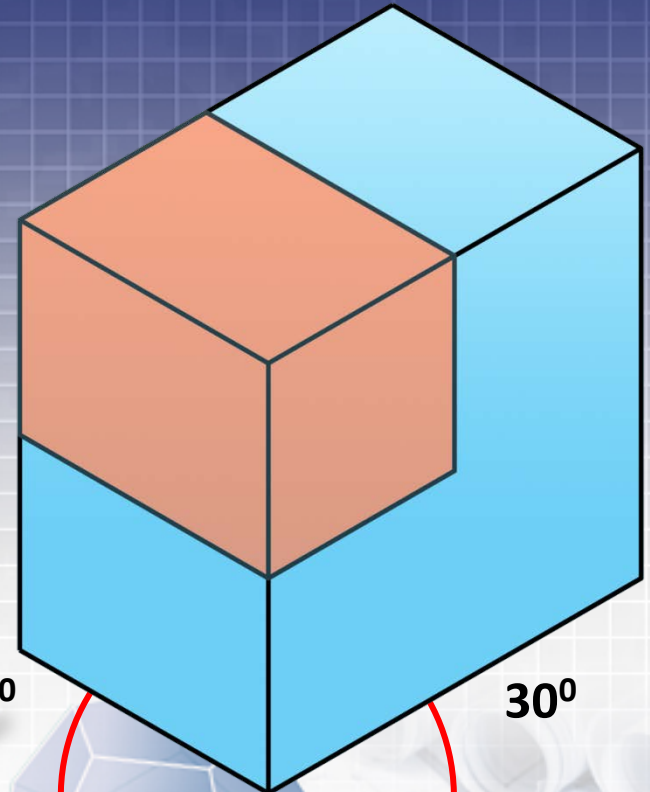
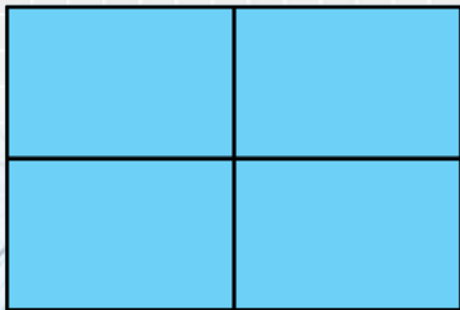
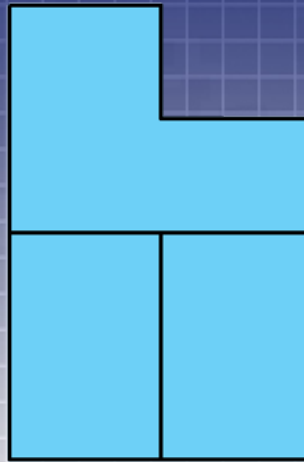
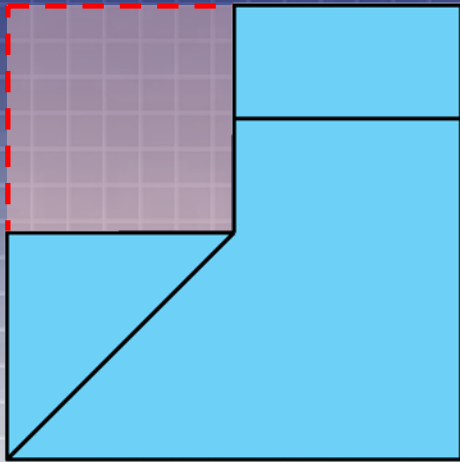
PASSAGEM DAS VISTAS PARA AXONOMETRIA



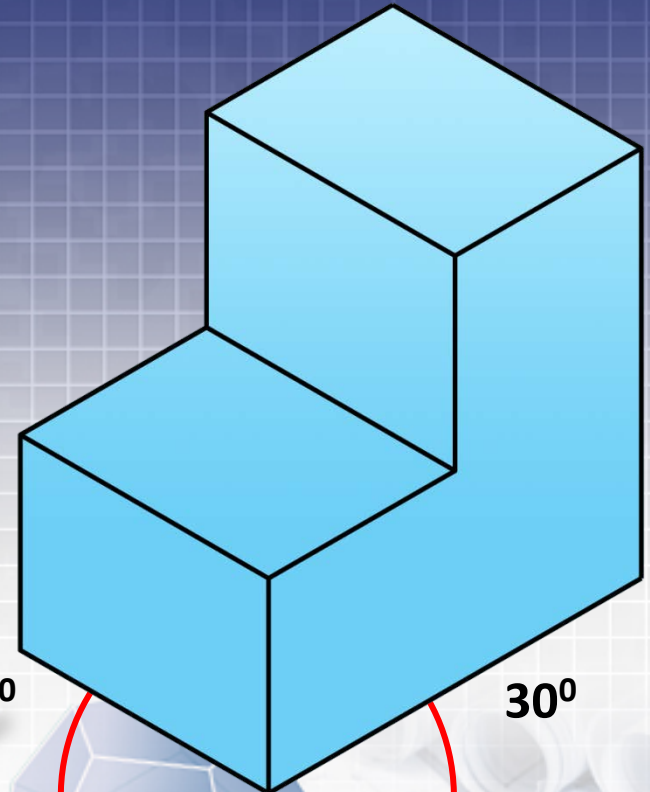
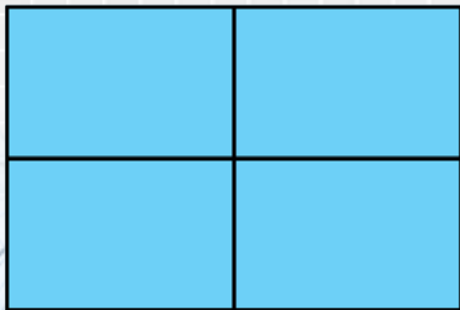
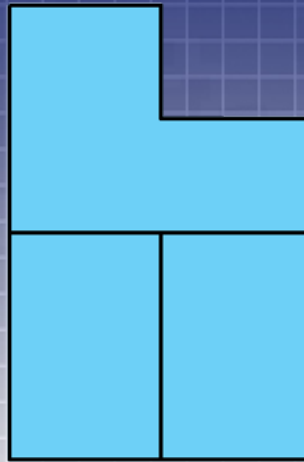
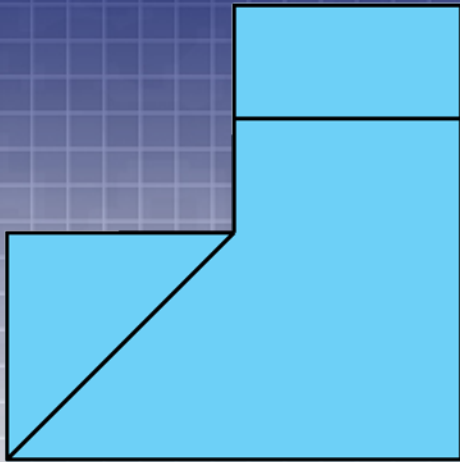
PASSAGEM DAS VISTAS ORTOGRÁFICAS PARA AXONOMETRIA



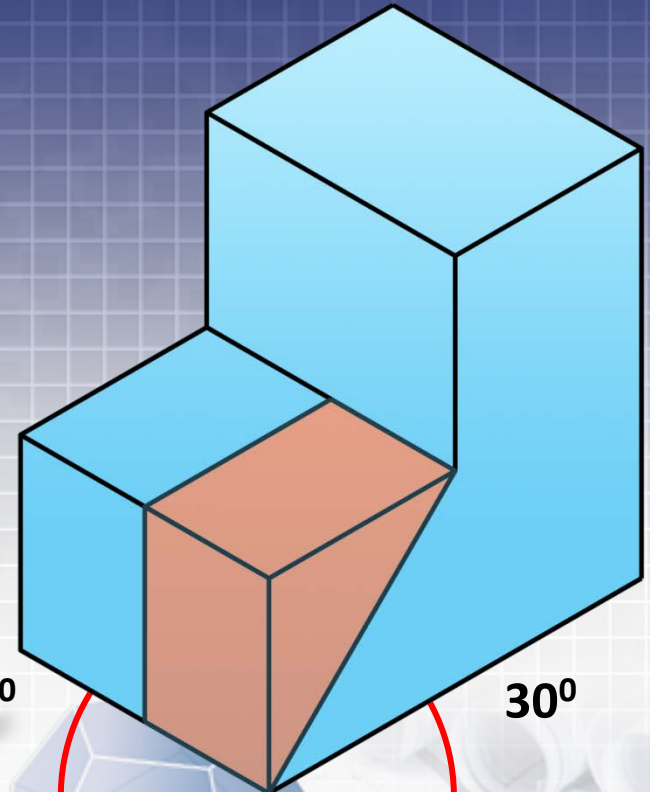
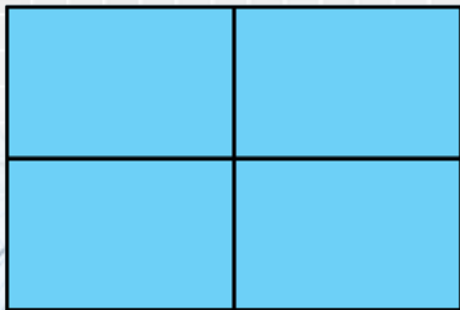
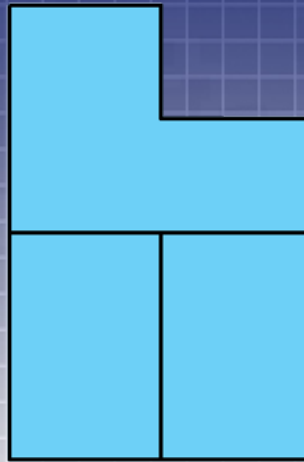
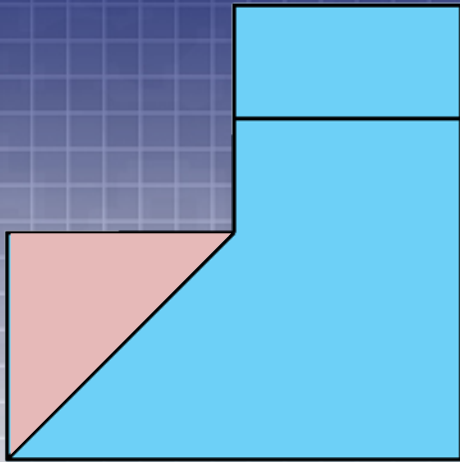
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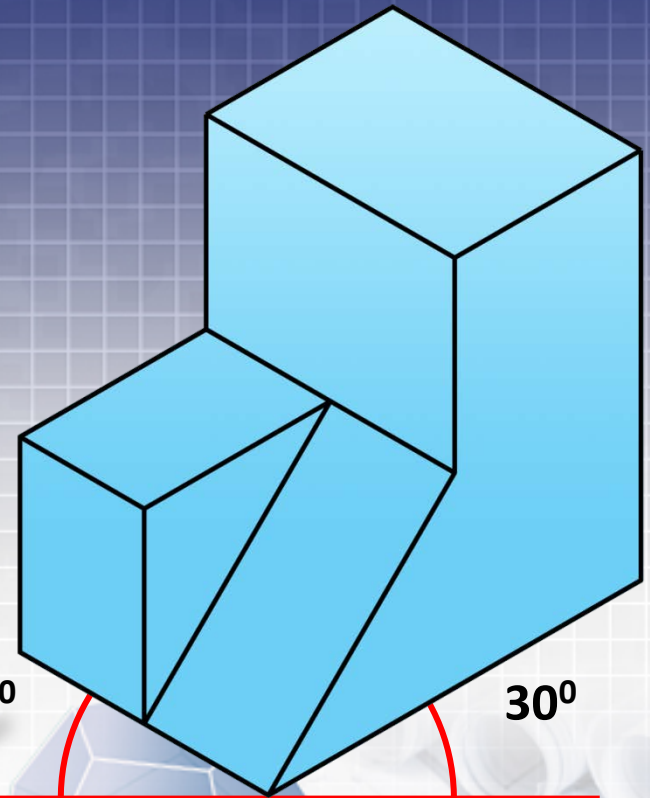
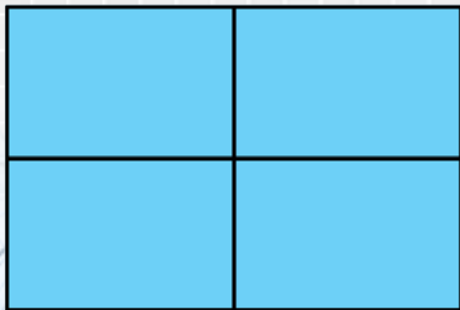
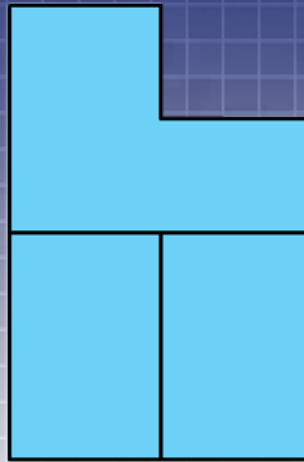
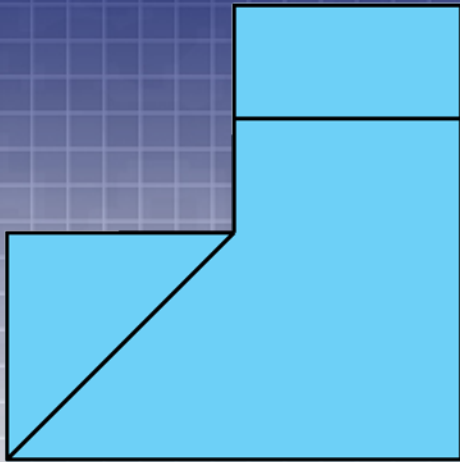
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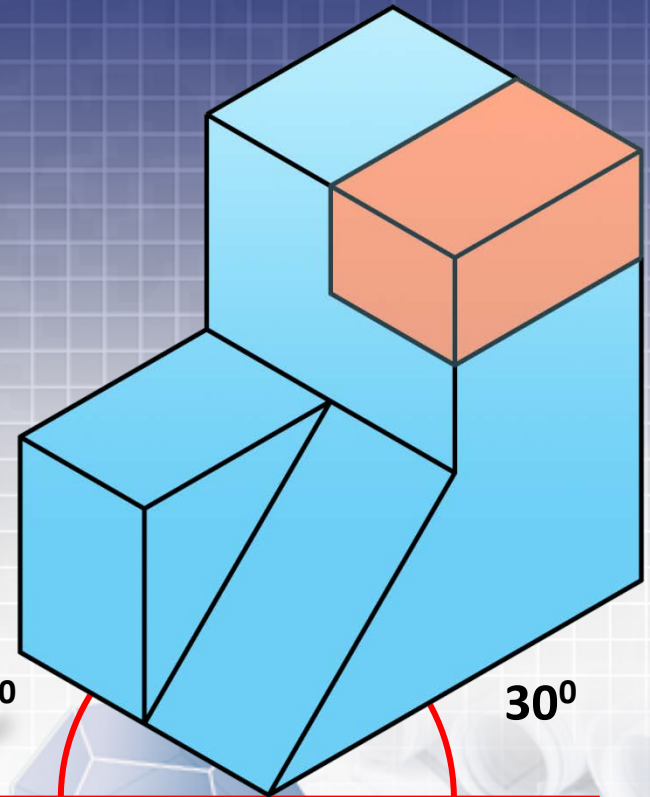
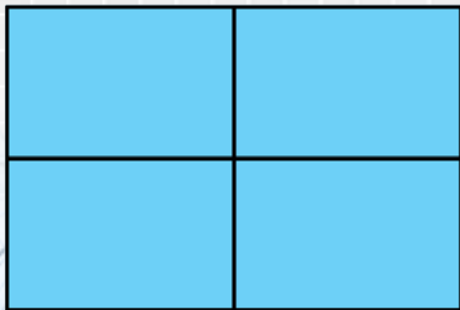
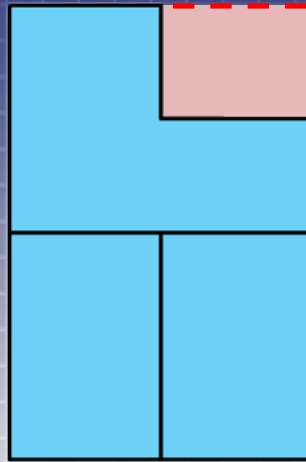
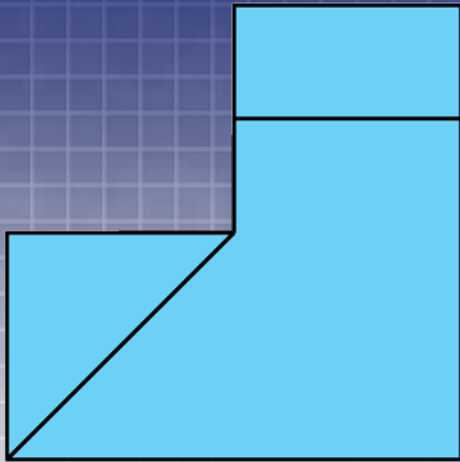
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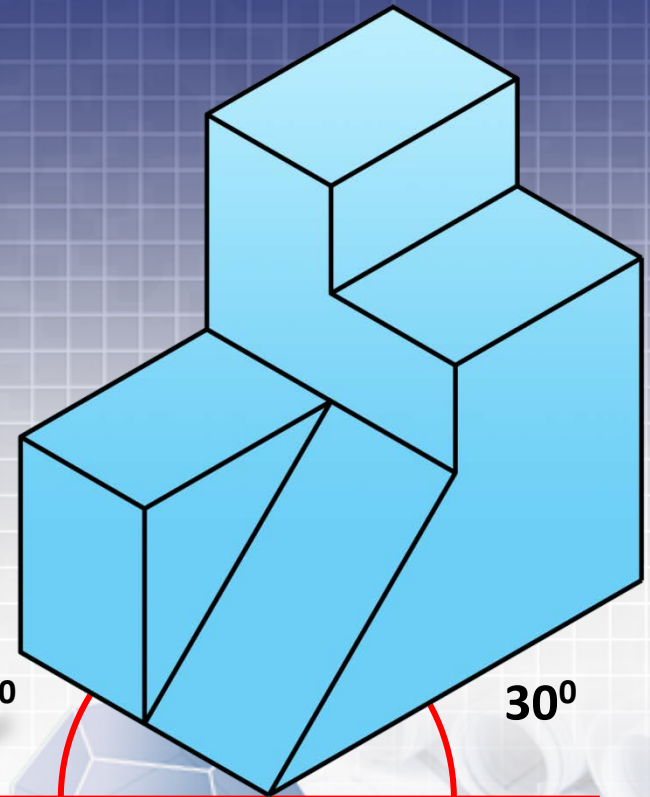
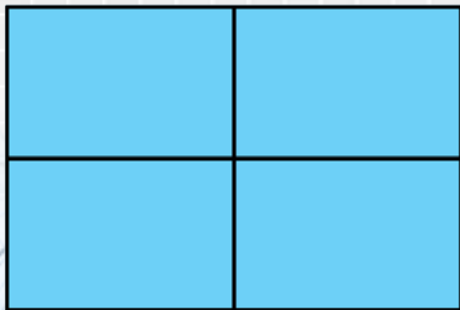
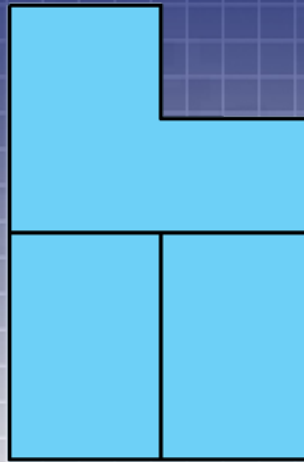
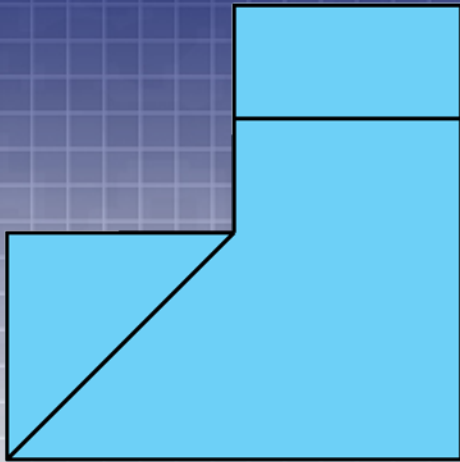
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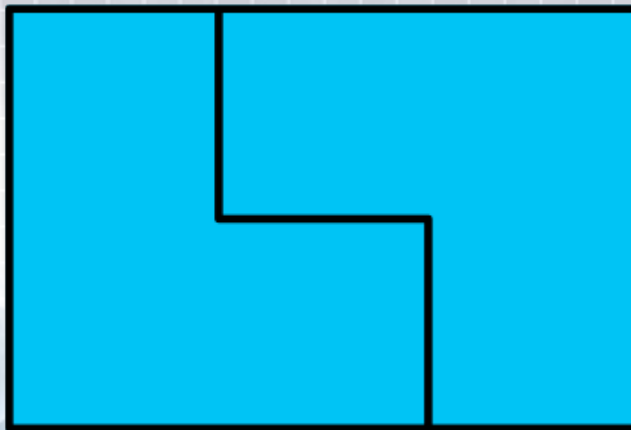
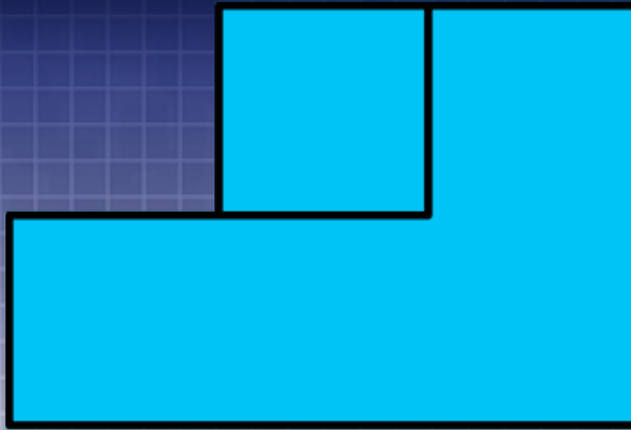
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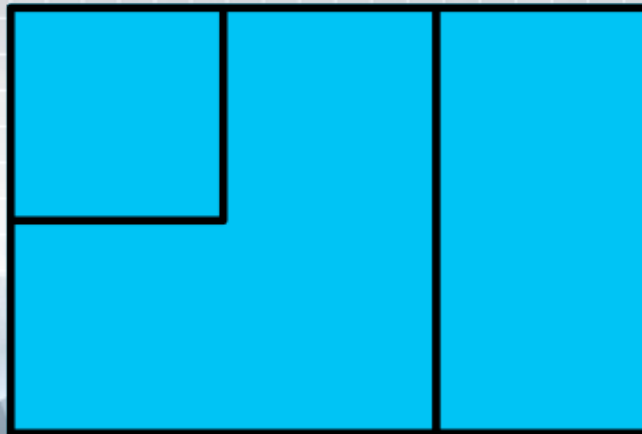
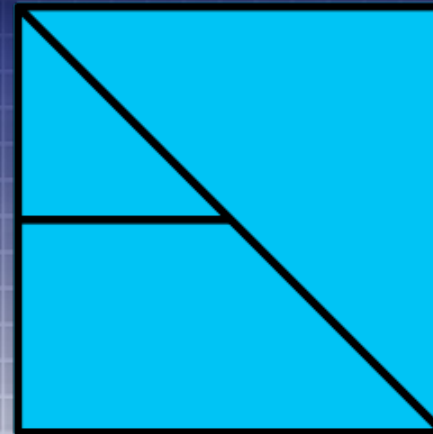
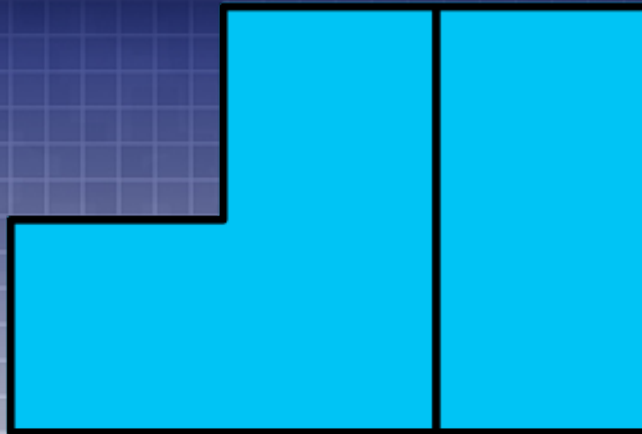
PASSAGEM DAS VISTAS ORTOGRÁFICAS PARA AXONOMETRIA



EXERCÍCIO

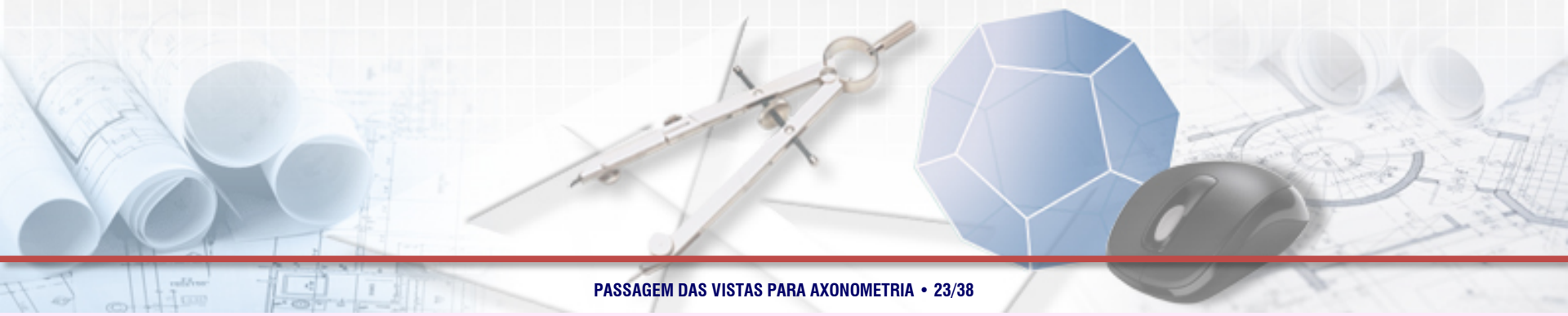


EXERCÍCIO



EXPRESSÃO GRÁFICA

CÍRCULO EM AXONOMETRIA



CÍRCULO EM AXONOMETRIA

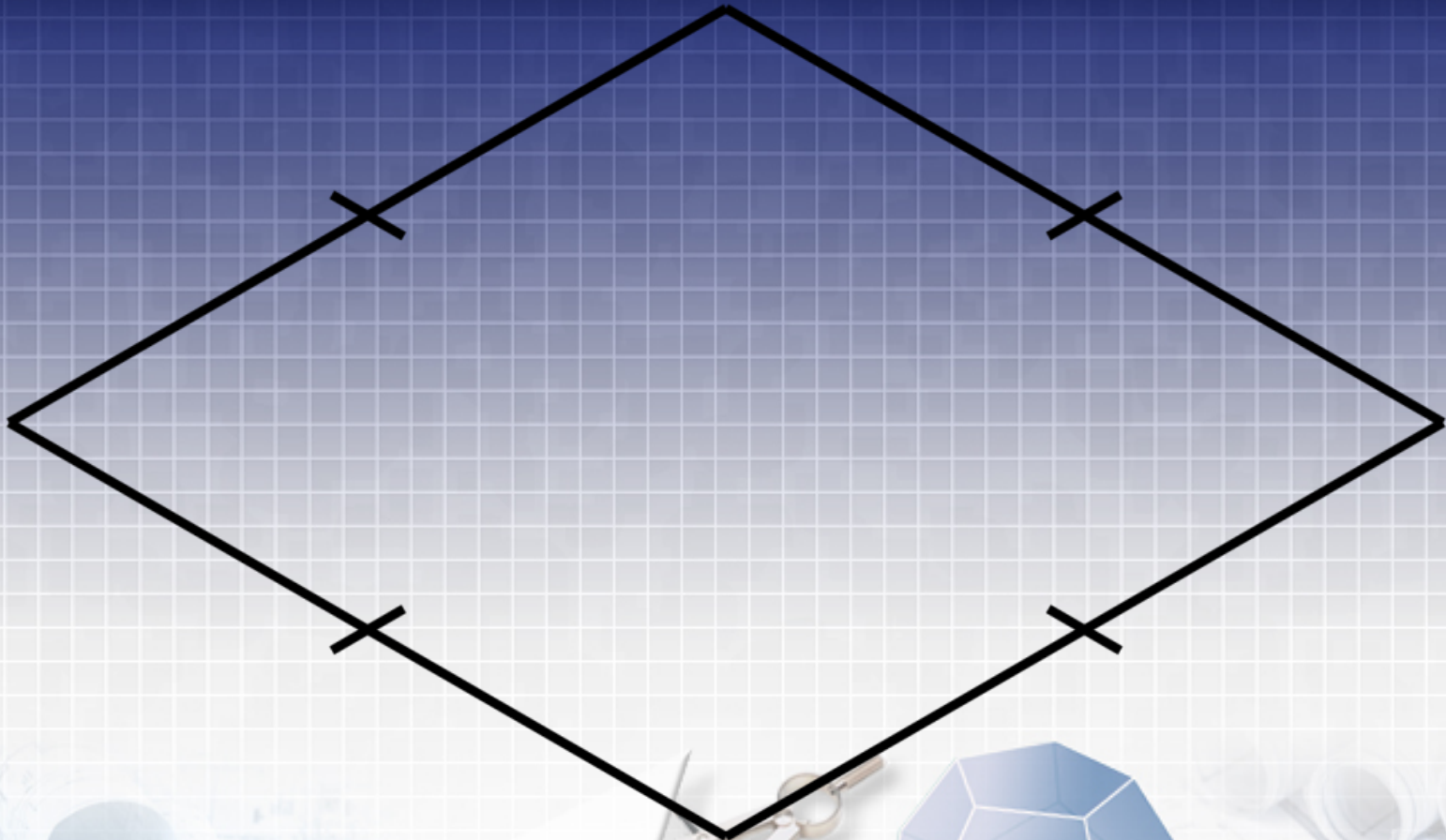
A projeção ortogonal de um círculo cujo plano não é paralelo ao plano de projeção é sempre uma elipse



CÍRCULO EM AXONOMETRIA

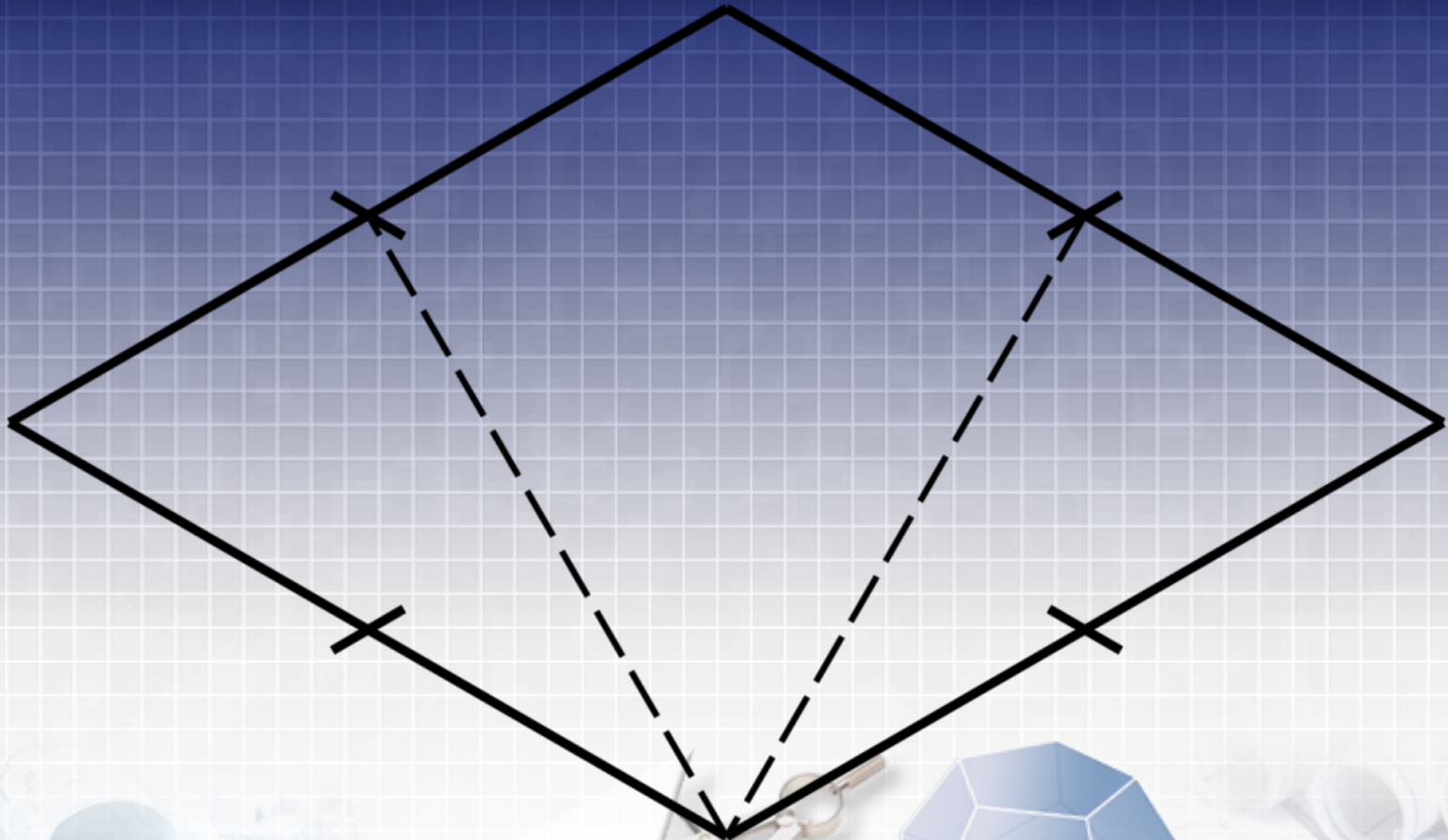
Dispor um quadrado circunscrito a um círculo, devidamente projetado como um paralelogramo, os pontos de tangência da elipse (projeção) com os lados desse paralelogramo estão sempre nos pontos médios desses lados.

CÍRCULO EM AXONOMETRIA



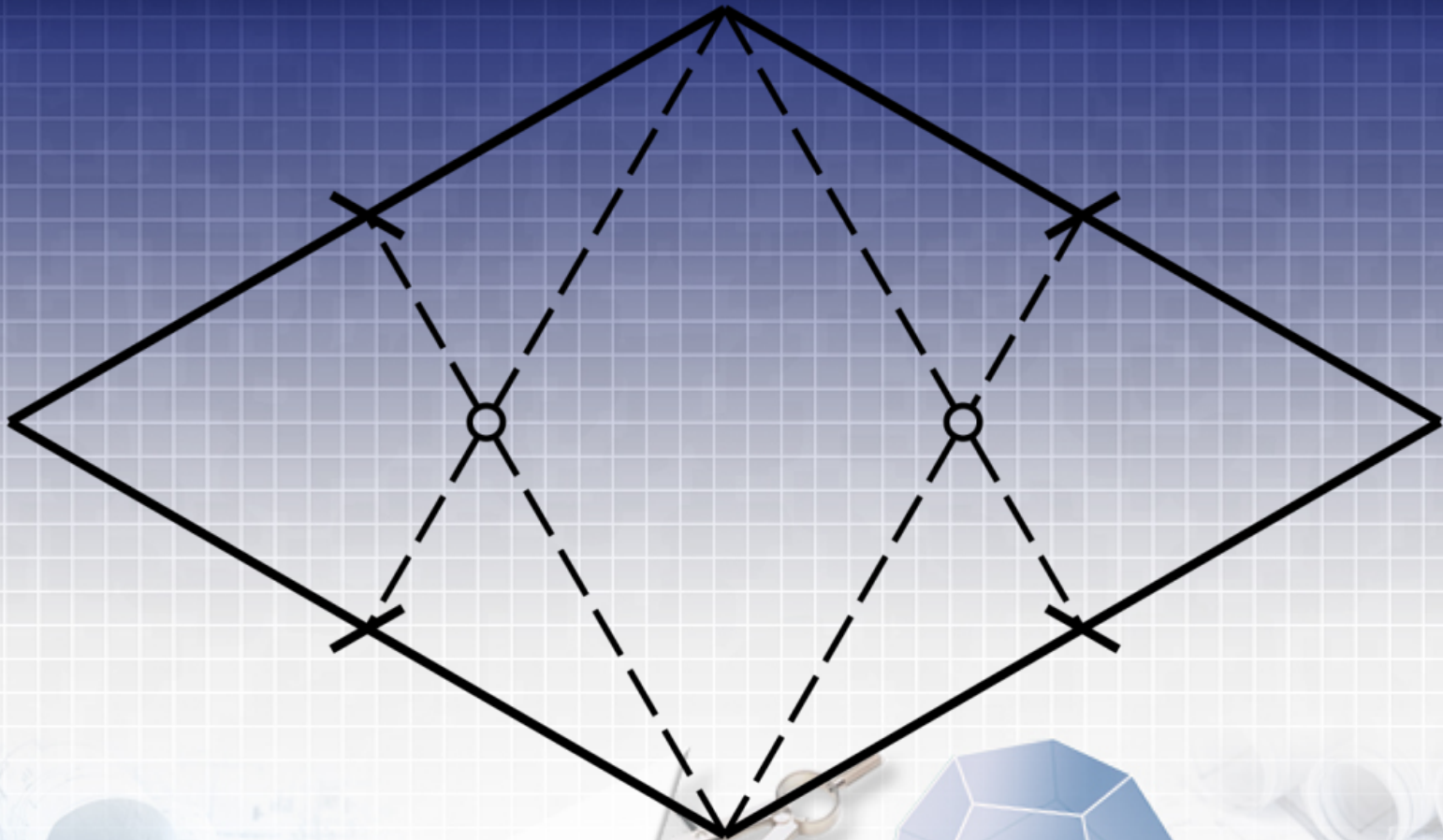
Quadrado em perspectiva isométrica

CÍRCULO EM AXONOMETRIA



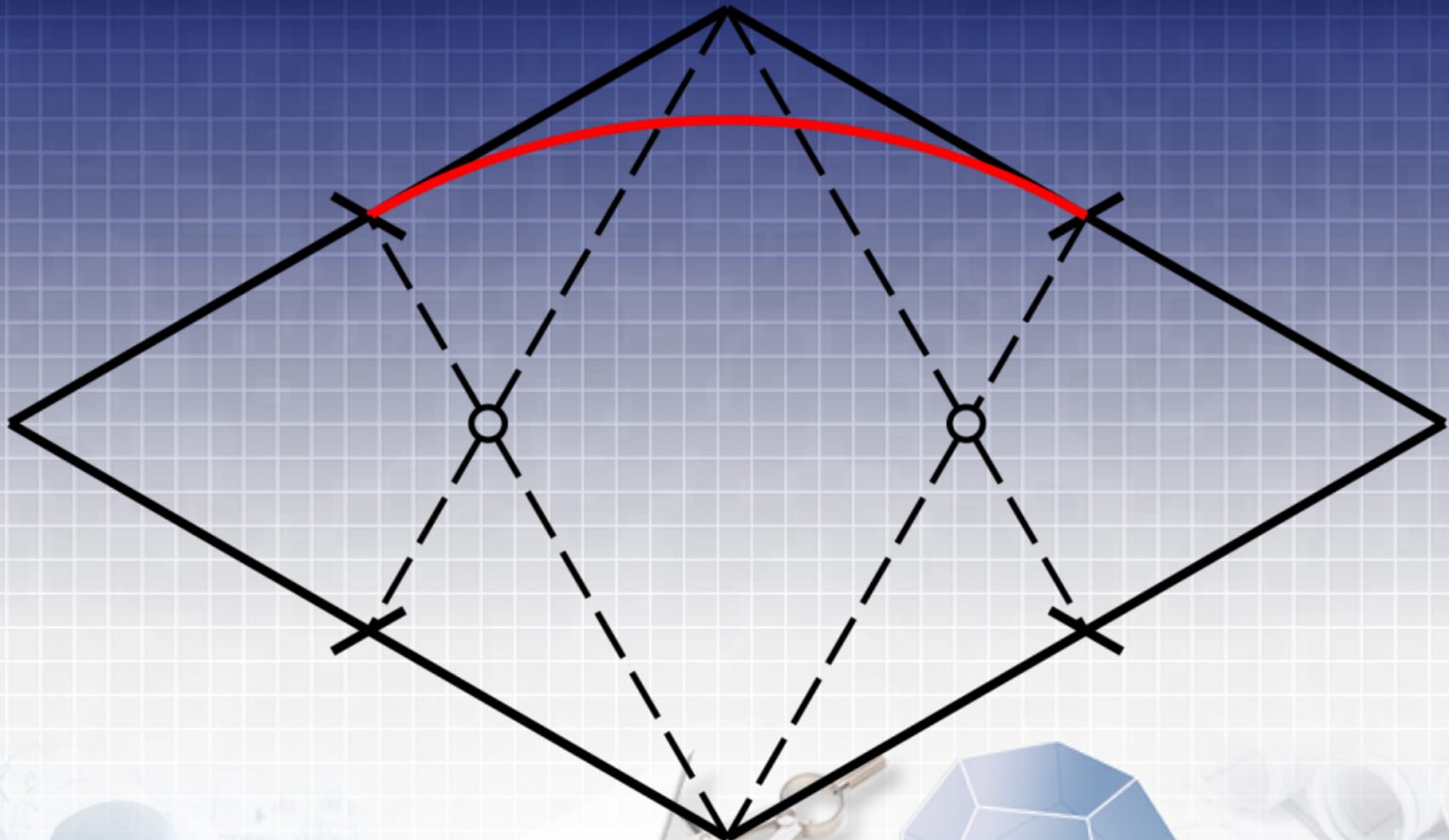
Medianas do vértice da diagonal menor

CÍRCULO EM AXONOMETRIA



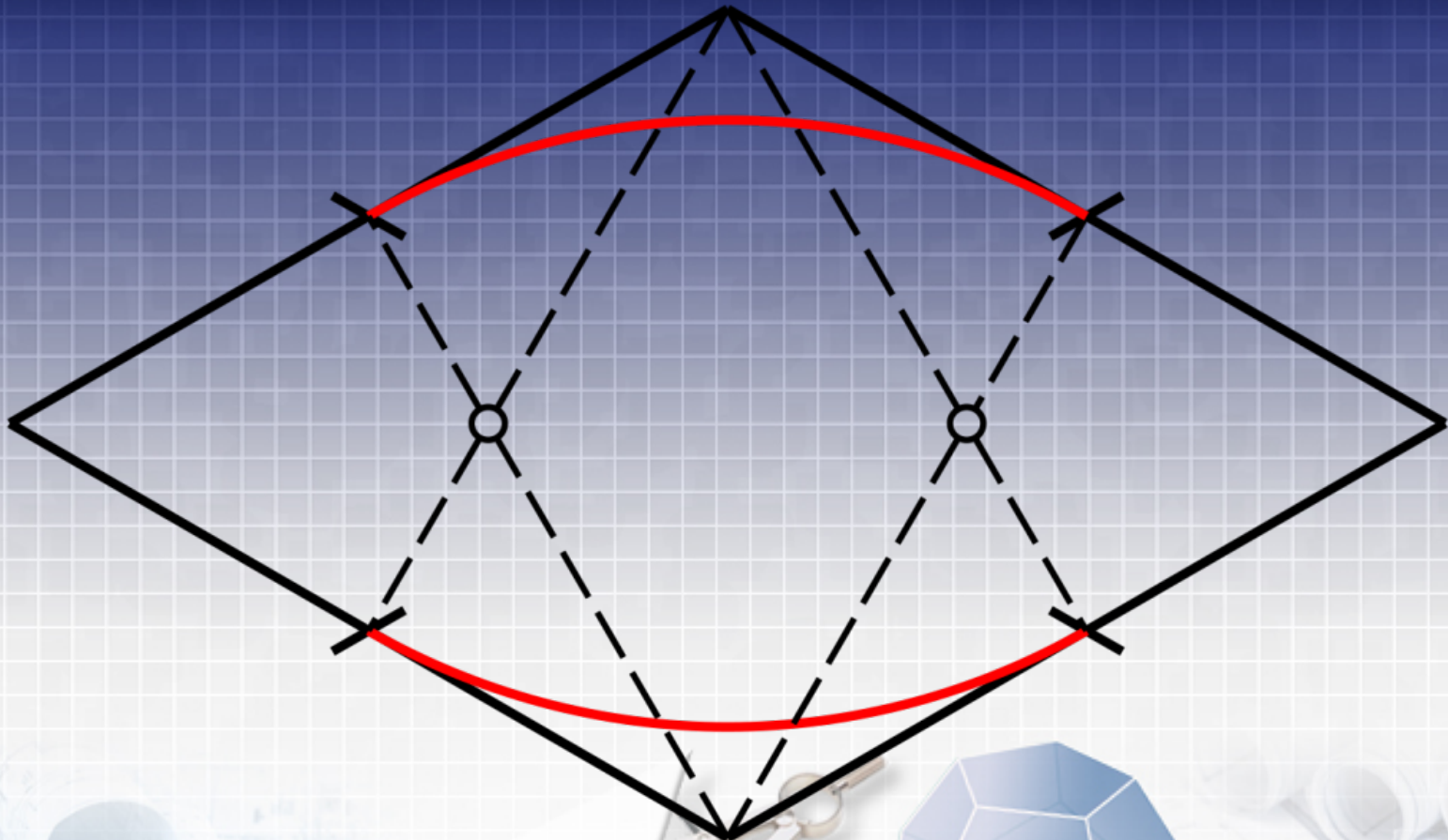
Medianas do vértice da diagonal menor

CÍRCULO EM AXONOMETRIA



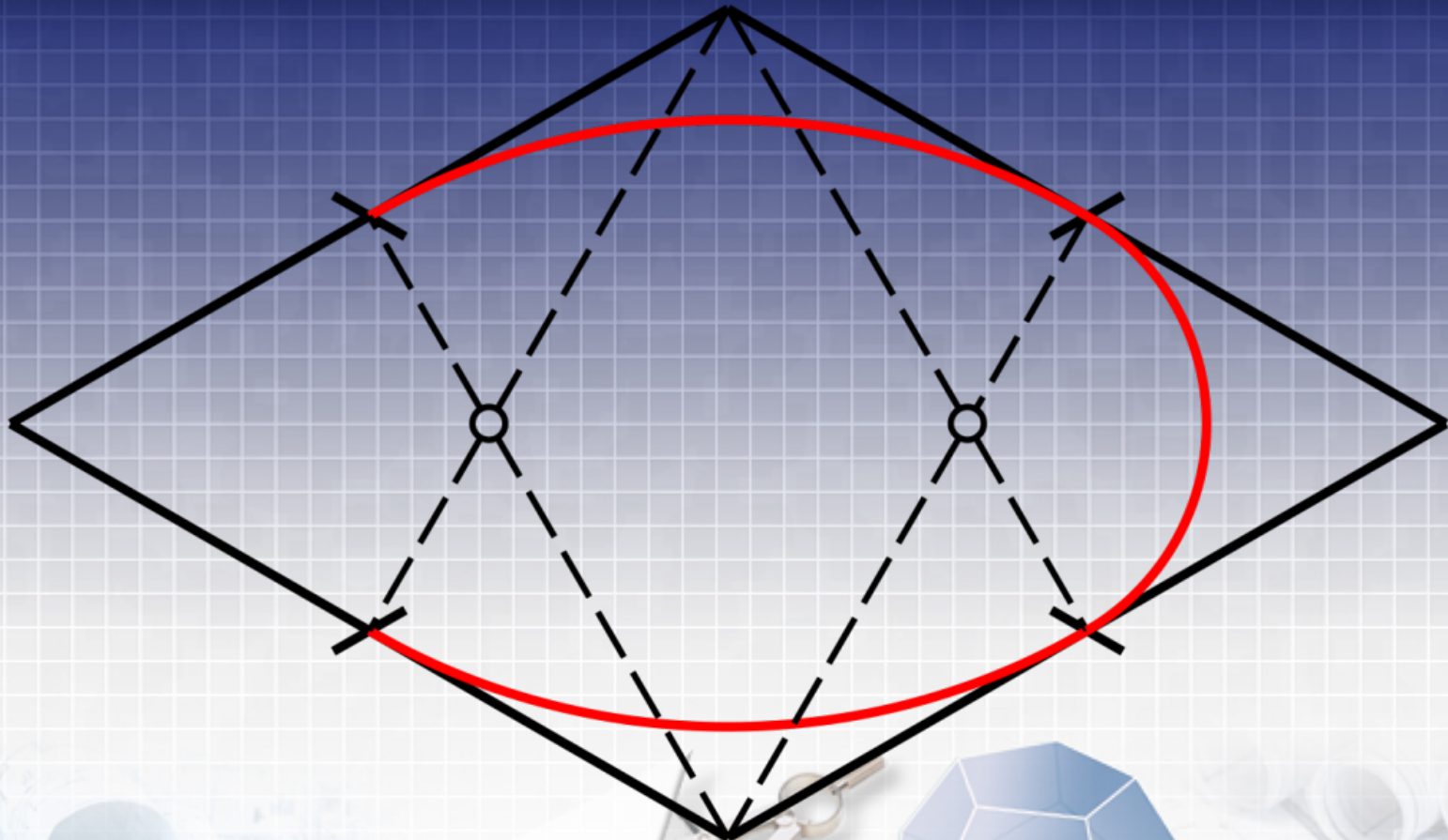
Centrar compasso no vértice da diagonal menor

CÍRCULO EM AXONOMETRIA



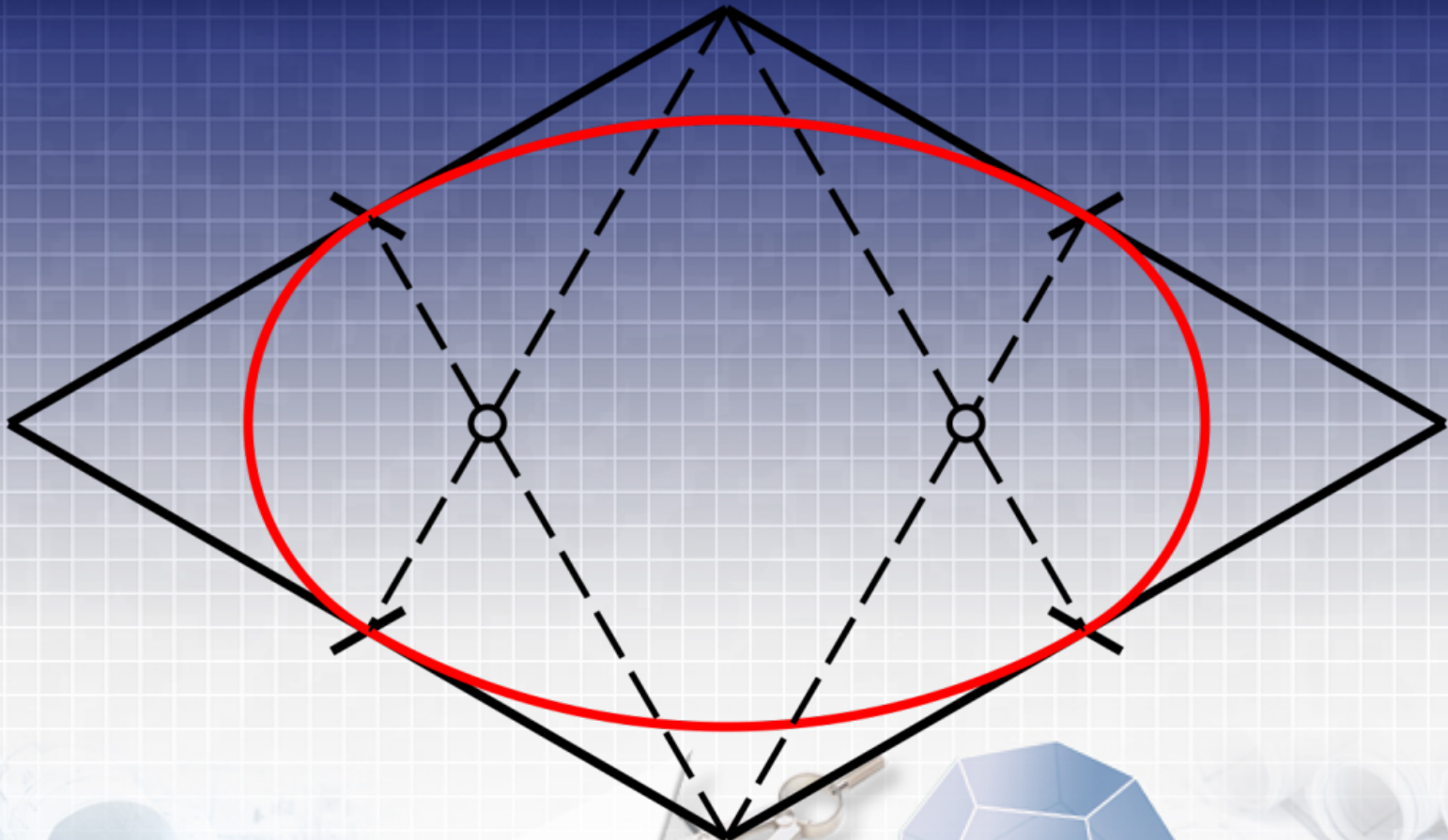
Medianas do vértice da diagonal menor

CÍRCULO EM AXONOMETRIA



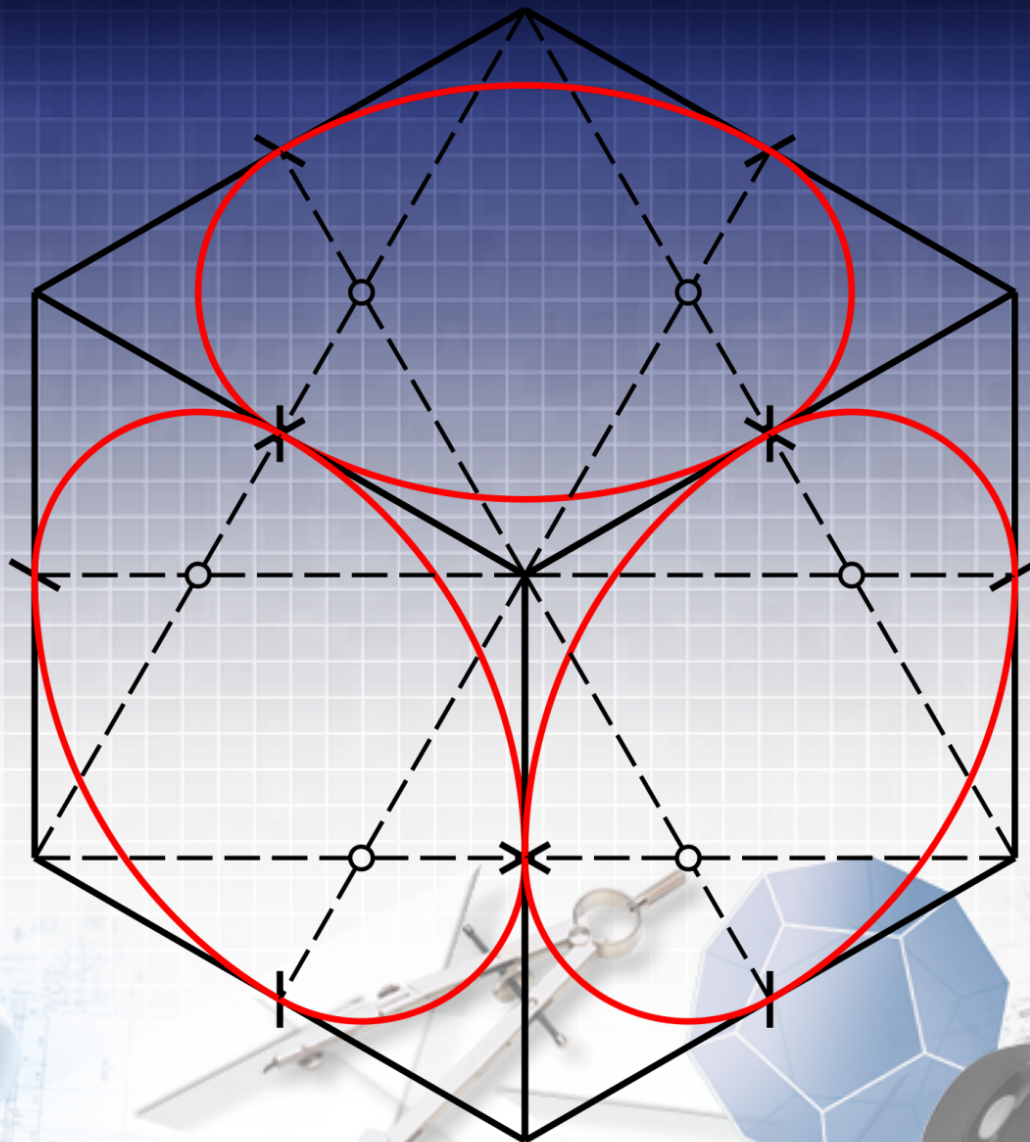
Centrar compasso no cruzamento das medianas

CÍRCULO EM AXONOMETRIA

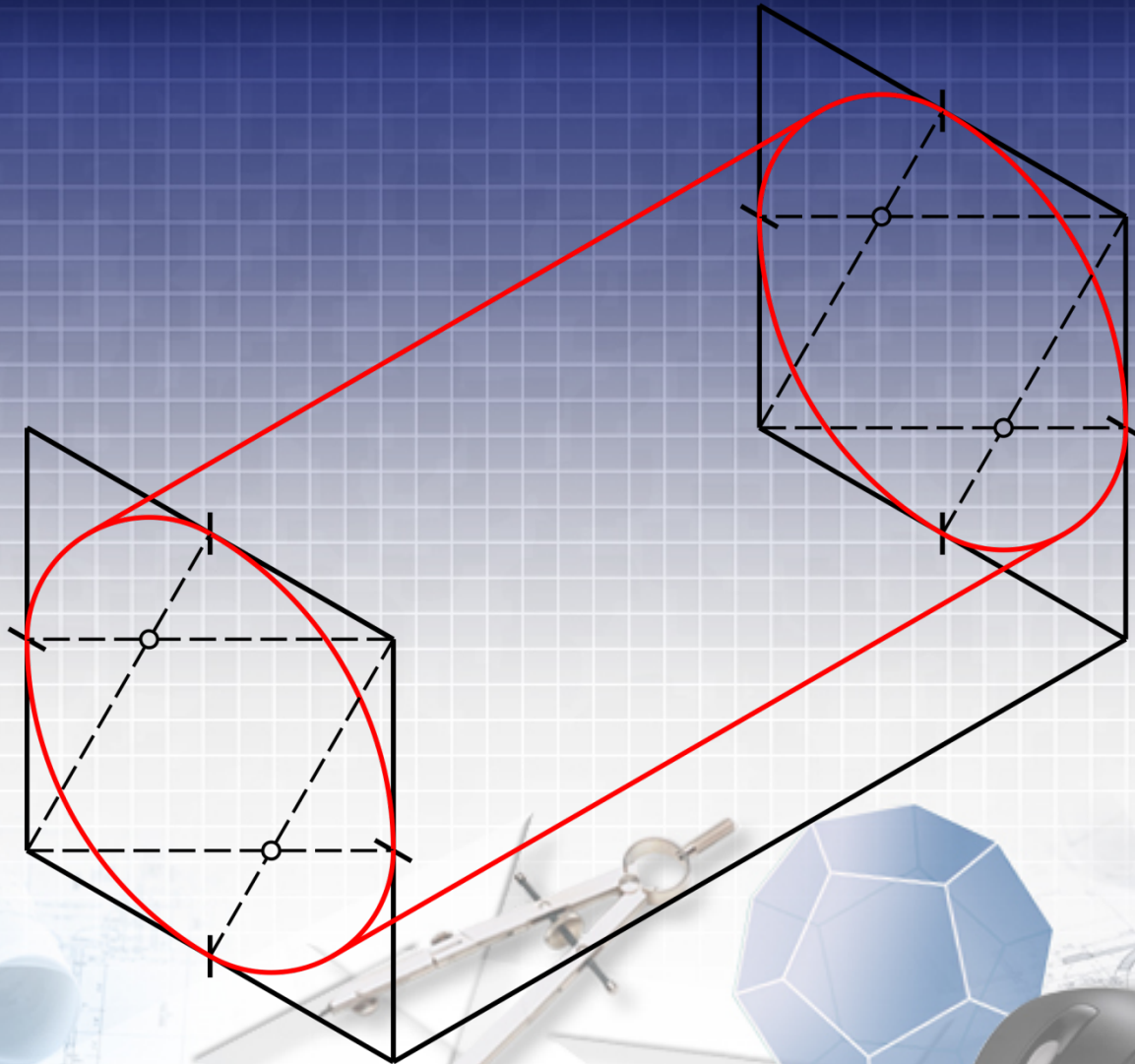


Centrar compasso no cruzamento das medianas

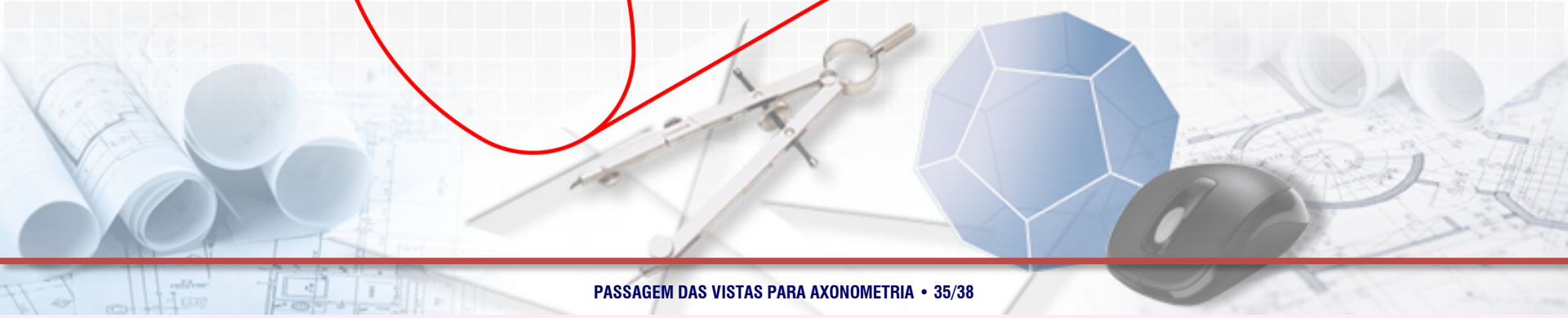
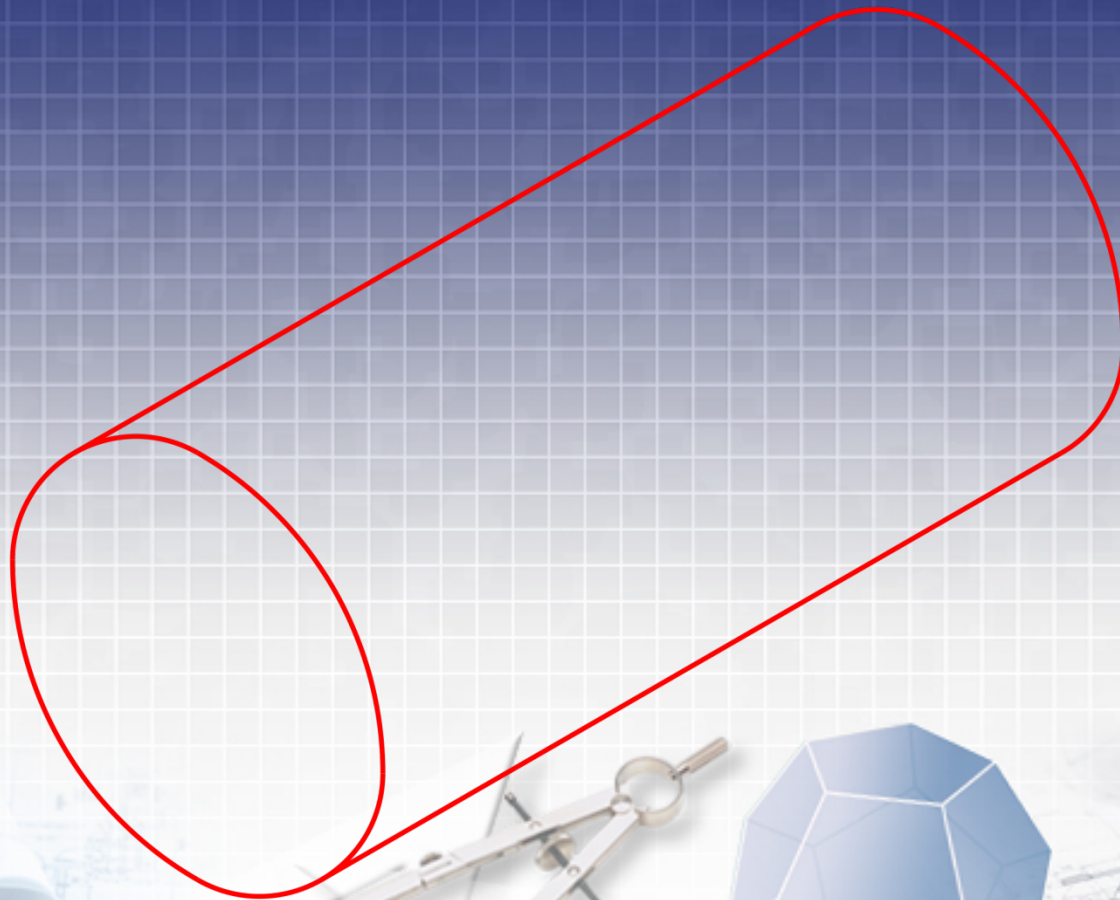
CÍRCULO EM AXONOMETRIA



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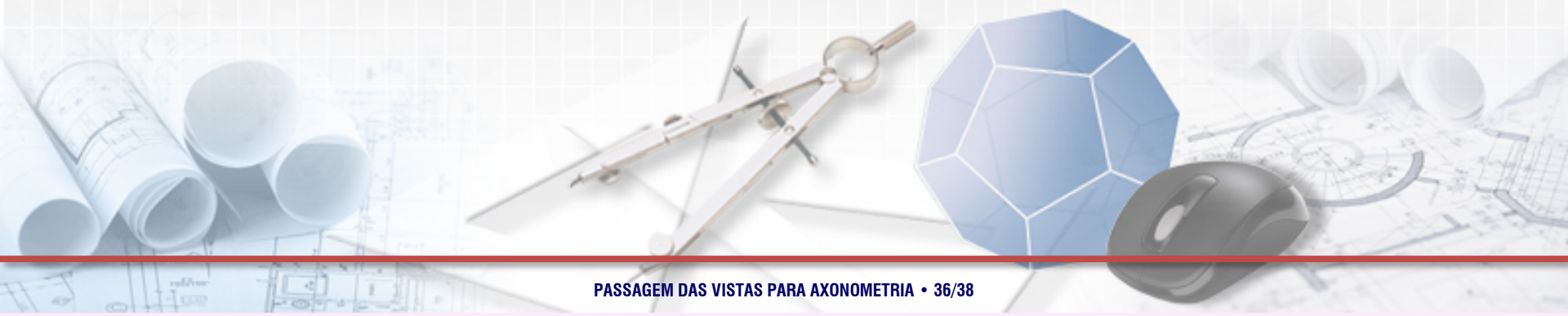


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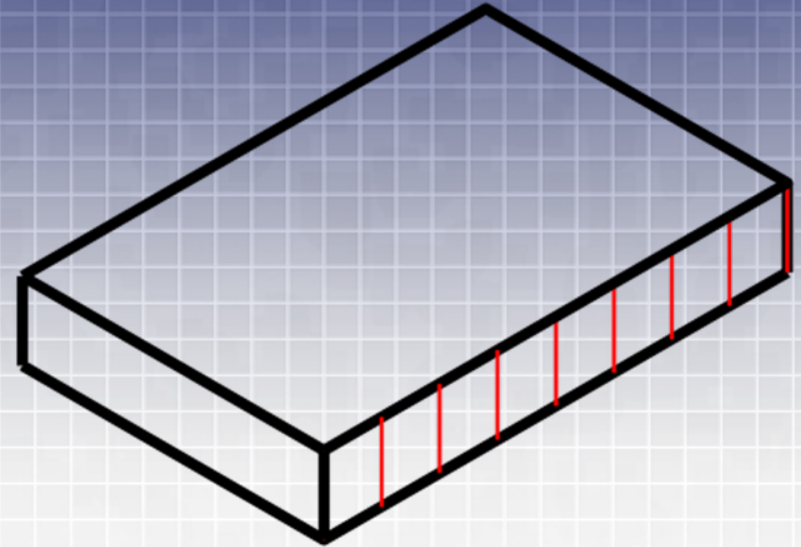
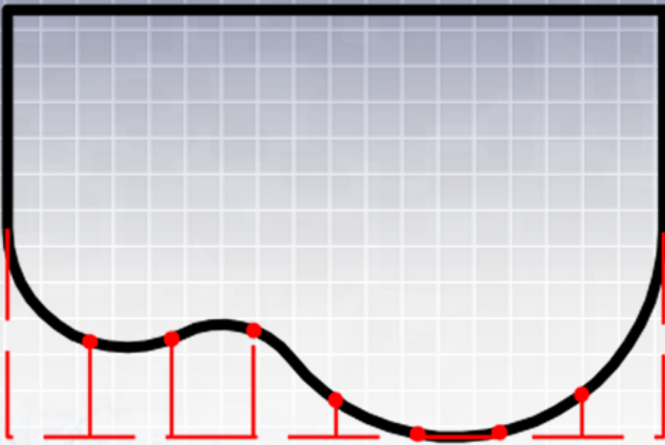


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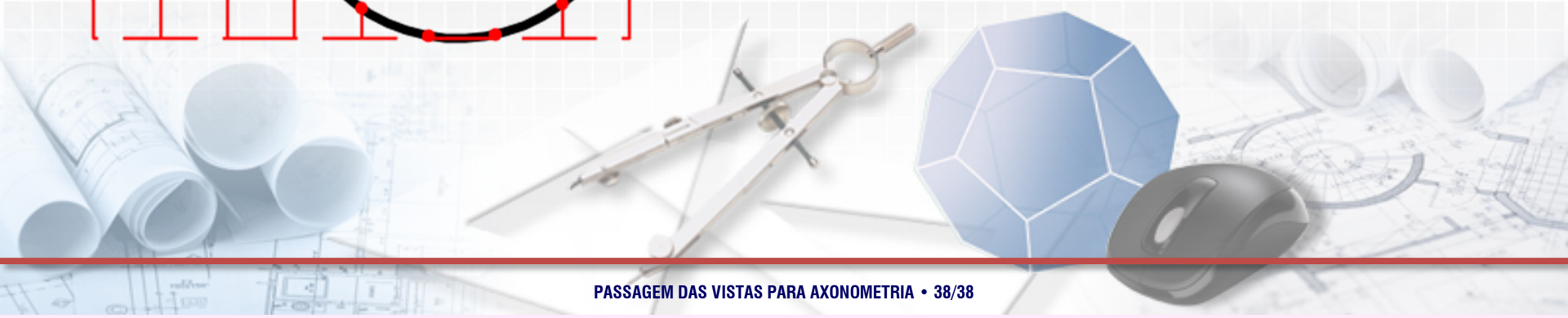
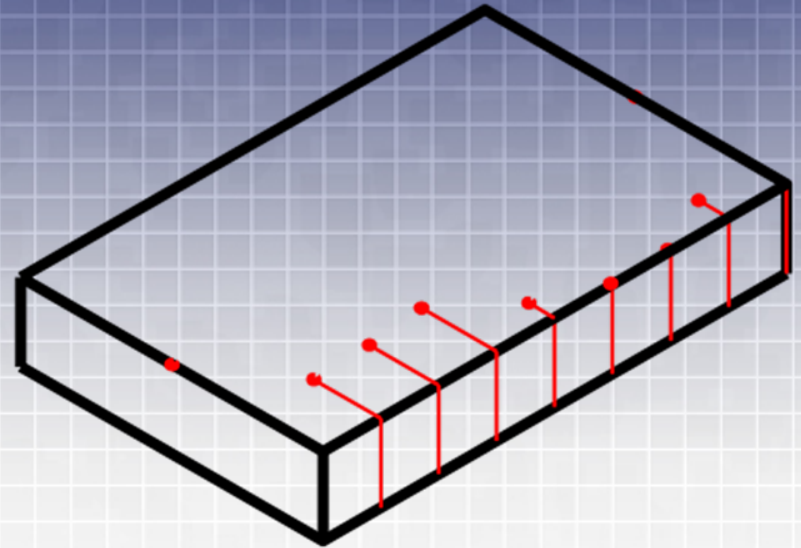
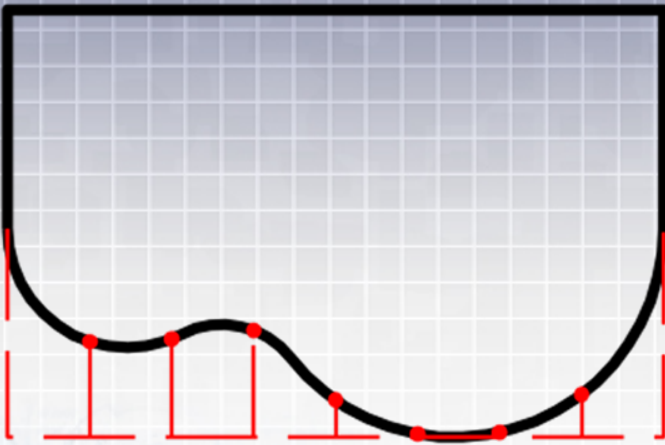
CURVAS IRREGULARES EM AXONOMETRIA



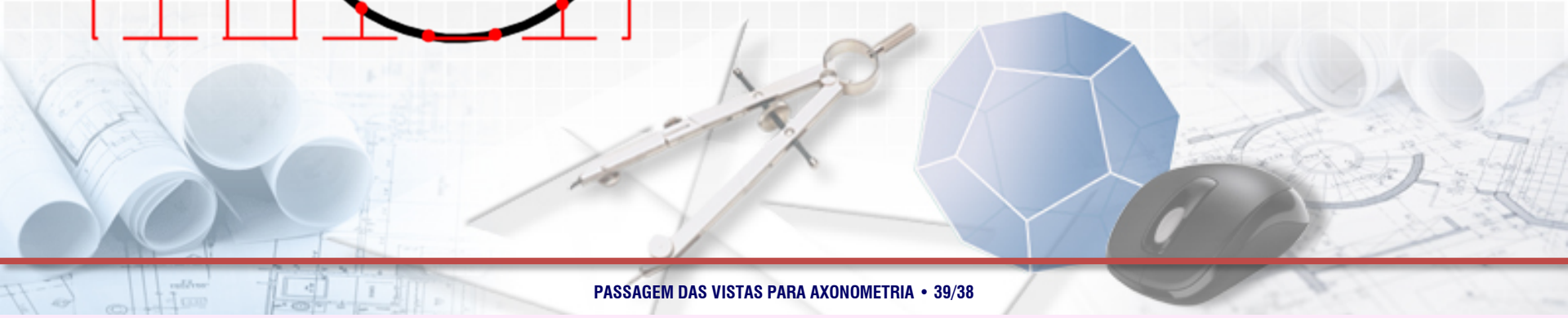
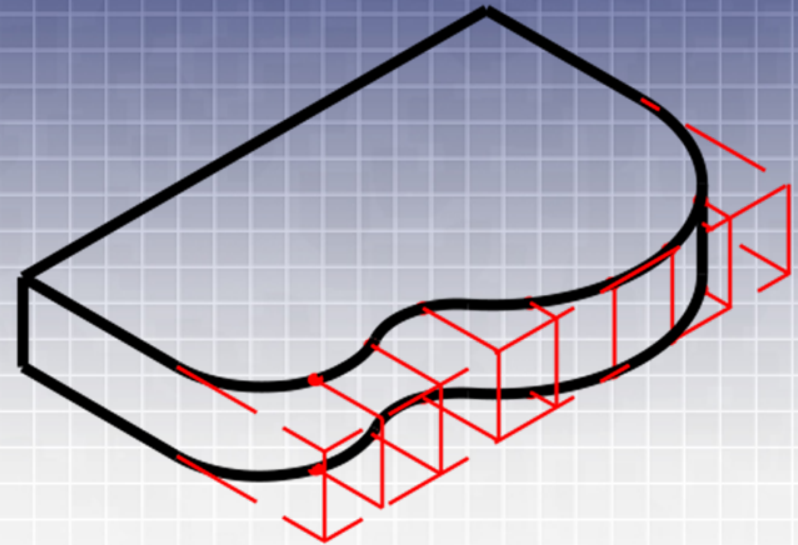
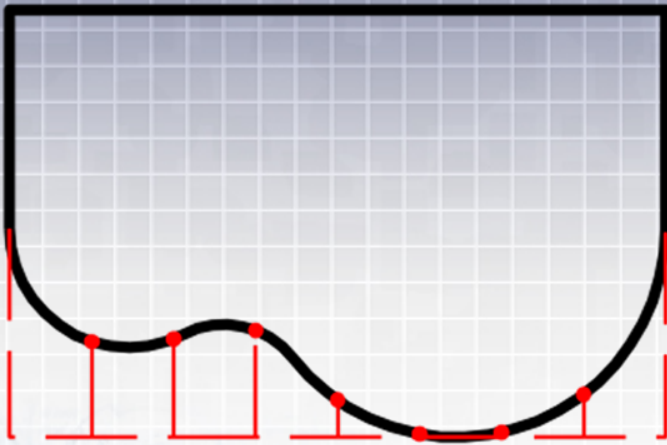
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