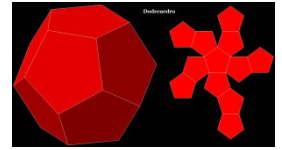


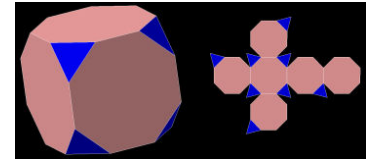
Famílias de poliedros

Considera as seguintes famílias de poliedros convexos:

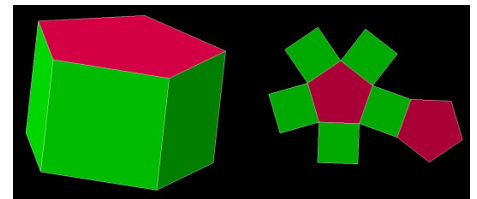
Sólido platónico - poliedro cujas faces são polígonos regulares e todos congruentes. Nos seus vértices encontram-se sempre o mesmo número de arestas.



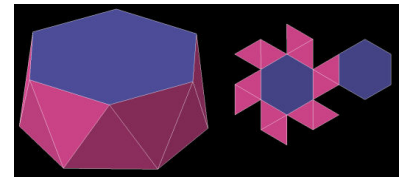
Sólido arquimediano (ou de Arquimedes) - Poliedro cujas faces são polígonos regulares de mais de um tipo, mas os seus vértices são todos do mesmo tipo, ou seja em torno de cada vértice existe o mesmo arranjo de polígonos.



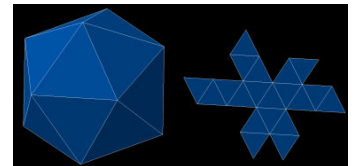
Prisma - poliedro formado por duas faces paralelas e congruentes, normalmente designadas por bases, e as faces laterais são paralelogramos. O número de faces laterais é igual ao número de lados do polígono da base.



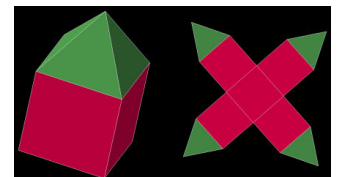
Antiprisma - poliedro formado por duas faces paralelas e congruentes, normalmente designadas por bases, e as faces laterais são triângulos. O número de faces laterais é sempre o dobro do número de lados do polígono da base.



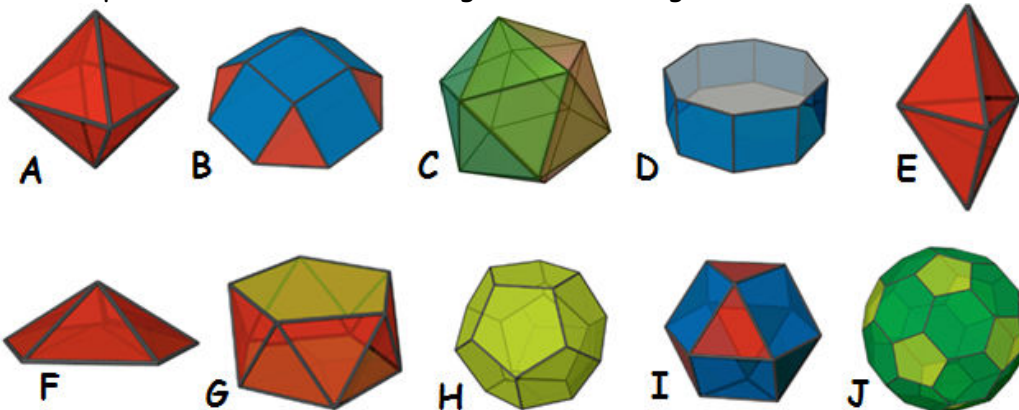
Deltaedro - poliedro cujas faces são triângulos equiláteros e todos congruentes.



Sólido de Johnson - poliedros que não são sólidos platónicos, nem sólidos arquimedianos, nem prismas e nem antiprismas. As faces são polígonos regulares e todas as arestas são de comprimento igual

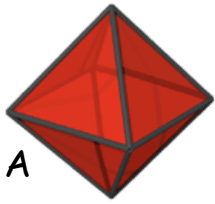


A que famílias pertencem cada um dos seguintes sólidos geométricos?



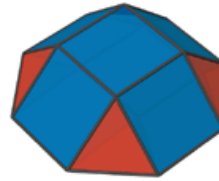
Sugestão: descarregar software (demo) para mostrar todas as perspetivas dos sólidos - [aqui](#).

Proposta de resolução:



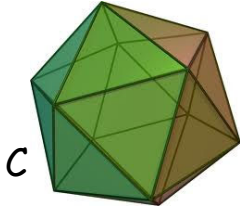
A

Sólido Platónico e
Deltaedro



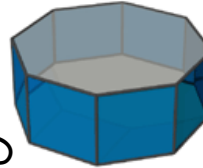
B

Sólido de Johnson



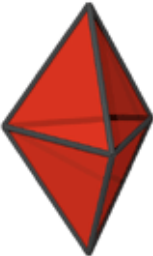
C

Sólido Platónico e
Deltaedro



D

Prisma



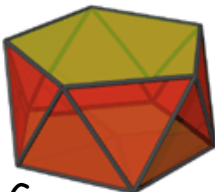
E

Sólido de Johnson e
Deltaedro



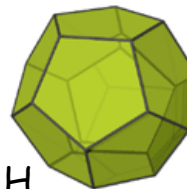
F

Sólido de Johnson



G

Antiprisma



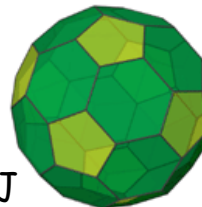
H

Sólido Platónico



I

Sólido Arquimediano



J

Sólido Arquimediano

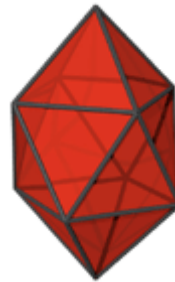
Alguns exemplos de sólidos:

- **Deltaedros (uma infinidade de sólidos, apenas 8 sólidos são convexos) _____**

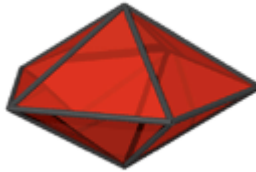
bipirâmide triangular



bipirâmide quadrada giralongada



bipirâmide pentagonal



Biesfenoide romo



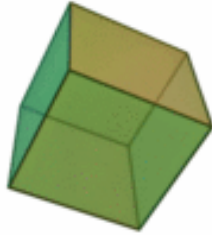
...

• Platónicos (5 sólidos)

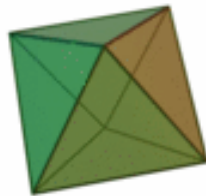
tetraedro



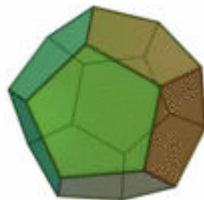
hexaedro



octaedro



Dodecaedro

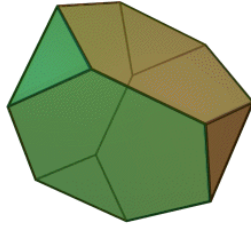


icosaedro

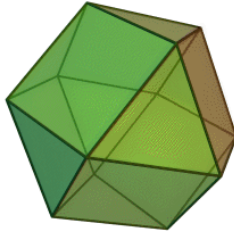


- **Sólidos de Arquimedes (13 sólidos)**

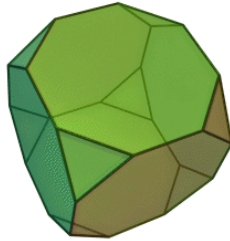
tetraedro truncado



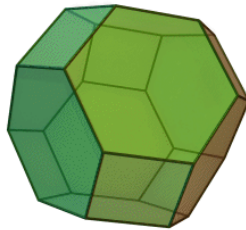
cuboctaedro



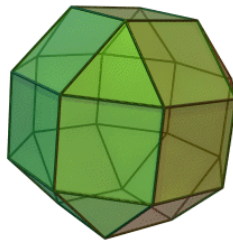
Cubo truncado



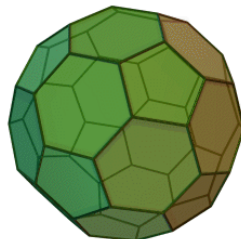
Octaedro truncado



Rombicuboctaedro



Icosaedro truncado



...

- **Sólidos de Johnson (92 sólidos)**

pirâmide pentagonal



pirâmide pentagonal alongada



cúpula pentagonal alongada



bipirâmide pentagonal alongada



girobicúpula pentagonal



bicúpula pentagonal giroalongada



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