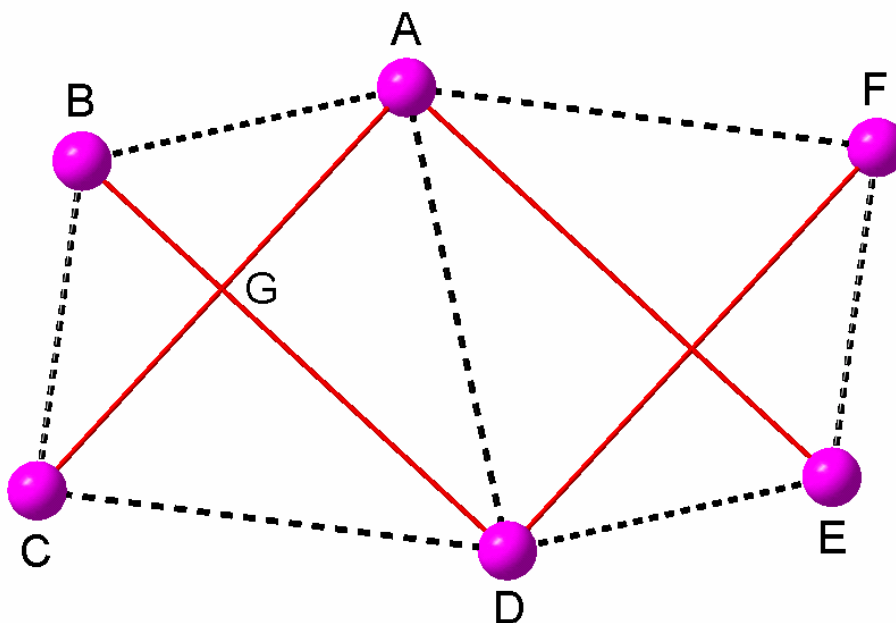




The area of this polygon can be calculated easily. The polygon consists of two triangles ABD and BCD. The triangles are identical as the lengths are identical ($AB = BC$, $AD = CD$ and BD is common. The area of a triangle is defined:

$$\text{Area} = 1/2 * \text{height} * \text{base}.$$

For example, in triangle ABD, the base is the diagonal BD and the height is AG. The formula for the area of triangle ABD is:

$$\text{Area (ABD)} = 1/2 * BD * AG.$$

Similiarly, the area of triangle BCD is

$$\text{Area (BCD)} = 1/2 * BD * GC$$

Hence, the area of the polygon ABCD is

$$\text{Area (ABCD)} = \text{Area (ABD)} + \text{Area (BCD)}$$

$$= 1/2 * BD * (AG + GC)$$

But $AG + GC = AC$

Hence

$$\text{Area (ABCD)} = \frac{1}{2} * BD * AC$$

Hence, the area of the polygon is half of the product of the two diagonals AC and BD, given in Angstroms.