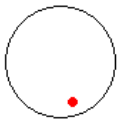
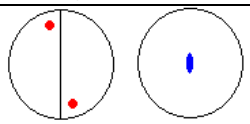
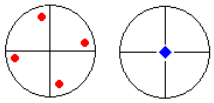
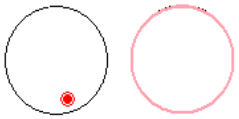
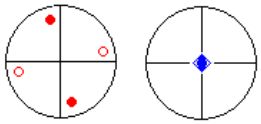
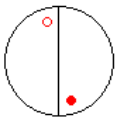
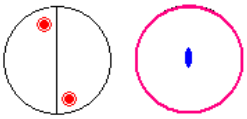
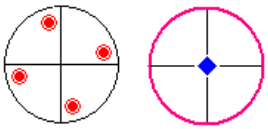
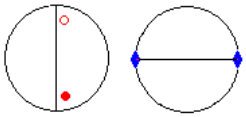
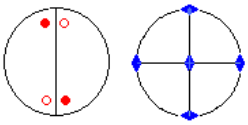
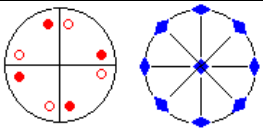
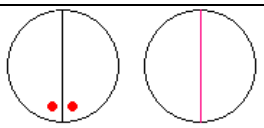
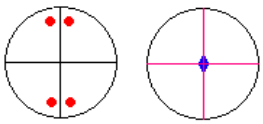
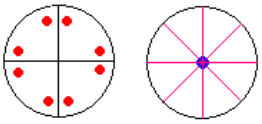
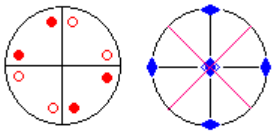
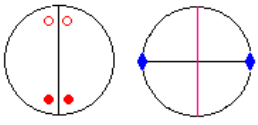
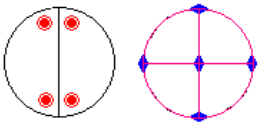
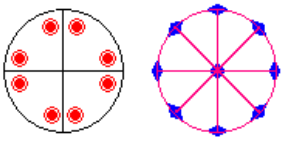
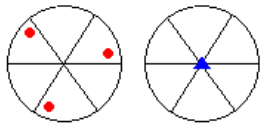
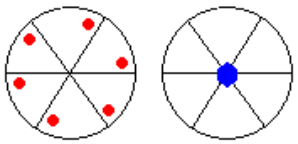
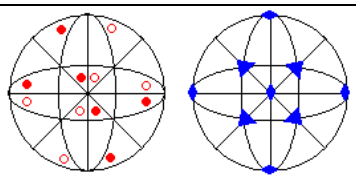
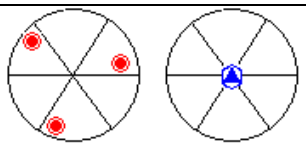
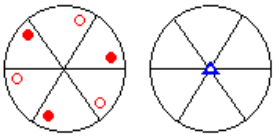
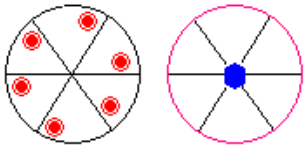
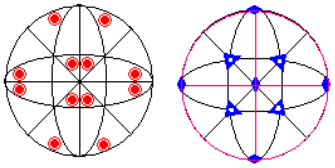
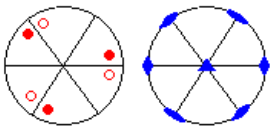
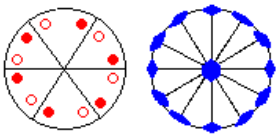
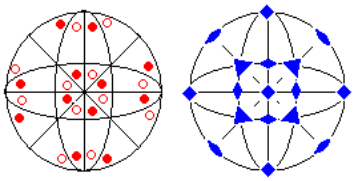
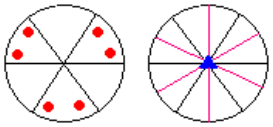
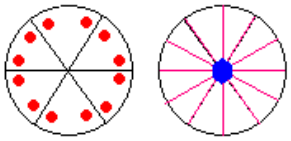
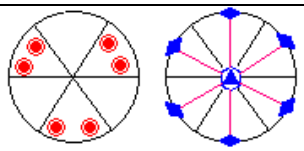
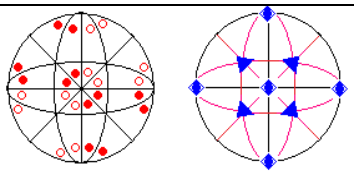
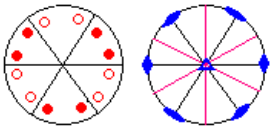
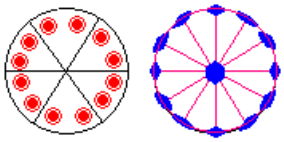
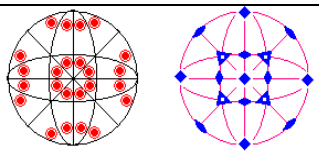
The 32 three dimensional point groups

Stereograms of poles of equivalent directions and symmetry elements of the 32 point groups (z-axis is normal to the paper in all drawings)

General Symbol	Triclinic	Monoclinic (1st setting)	Tetragonal
X	 1	 2	 4
$\bar{X}$ even		 m ≡ $\bar{2}$	 $\bar{4}$
X + centre $\bar{X}$ odd	 $\bar{1}$	 2/m	 4/m
	Monoclinic (2nd setting)	Orthorhombic	
X2	 2	 222	 422
Xm	 m	 mm2	 4mm
$\bar{X}$2 or $\bar{X}$m even			 $\bar{4}$2m
X2 + centre Xm +centre $\bar{X}$m odd	 2/m	 Mmm =2/m 2/m 2/m	 4/mmm = 4/m 2/m 2/m

	Trigonal	Hexagonal	Cubic
X	 3	 6	 23
$\bar{X}$ even		 $\bar{6}$	
X + centre $\bar{X}$ odd	 $\bar{3}$	 6/m	 m3 =2/m $\bar{3}$
X2	 32	 622	 432
Xm	 3m	 6mm	
$\bar{X}$2 or $\bar{X}$m even		 $\bar{6}$ m2	 $\bar{4}$3m
X2 + centre Xm +centre $\bar{X}$m odd	 $\bar{3}$m = $\bar{3}$ 2/m	 6/mmm = 6/m 2/m 2/m	 m3m = 4/m $\bar{3}$ 2/m