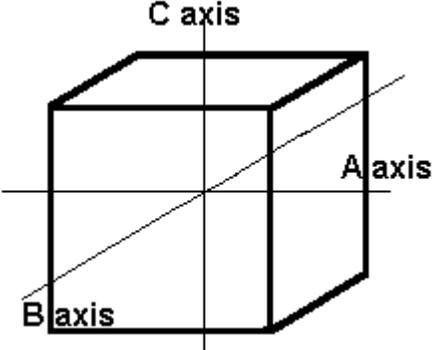
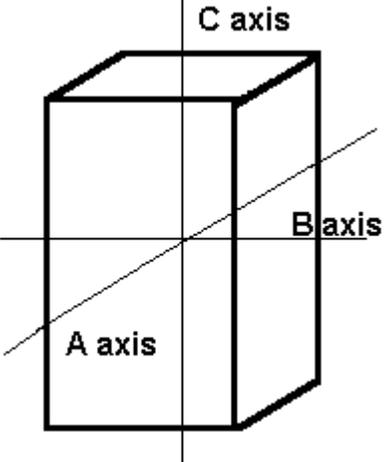
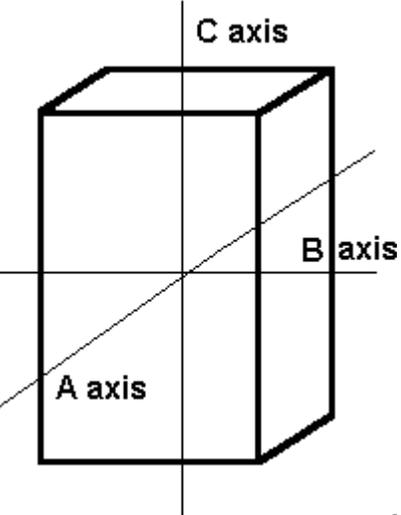




## Know Your Crystal Systems?

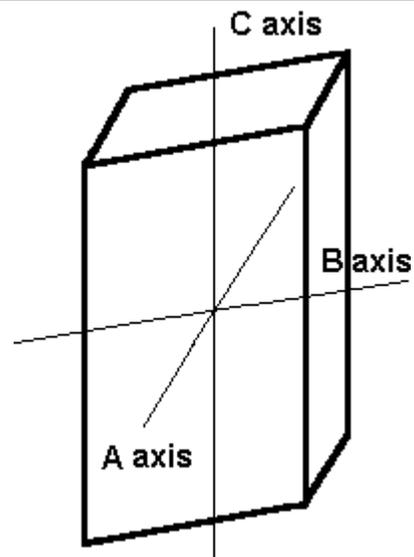
Read the description for each of the six crystal systems and write your answer in blank. (Hint: See the last page of the newsletter for the names of the six crystal systems. See the next six issues for more information about each crystal system, along with pictures of their basic shapes.)

	<p>This crystal system has three axes of the same length that intersect at <math>90^\circ</math> angles. Minerals that form in this system include all garnets, diamond, fluorite, gold, lapis lazuli, pyrite, silver, sodalite, sphalerite, and spinel.</p> <p>Minerals in this crystal system appear as cubes, octahedrons or dodecahedrons.</p> <p>Answer _____</p>
	<p>This crystal system also has three axes. Axis C is longer than axes A and B, which are the same length. Minerals that form in this system include apophyllite, idocrase, rutile, scapolite, wulfenite, and zircon.</p> <p>Minerals in this crystal system appear as tetragonal prisms, dipyramids, and pyramids with prisms.</p> <p>Answer _____</p>
	<p>This crystal system has three axes, each of which is a different length. These axes intersect at <math>90^\circ</math> angles. Minerals that form in this system include andalusite, celestite, chrysoberyl (including alexandrite), cordierite, iolite, danburite, zoisite, tanzanite, thulite, enstatite, hemimorphite, fibrolite/sillimanite, hypersthene, olivine, peridot, sulfur, and topaz.</p> <p>Minerals in this crystal system appear as dipyramids and two types of prisms.</p> <p>Answer _____</p>

The axes in this crystal system are all different lengths. The A and C axes intersect at  $90^\circ$ , but axis B does not. Minerals that form in this system include azurite, brazilianite, crocoite, datolite, diopside, jadeite, lazulite, malachite, orthoclase feldspars (including albite moonstone), staurolite, sphene, and spodumene (including hiddenite and kunzite).

Gems that form in this crystal system appear as clinopinacoids and two types of prisms.

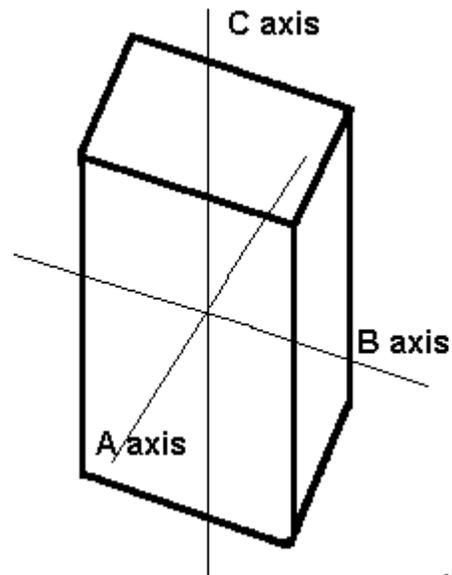
Answer \_\_\_\_\_



In this crystal system, all the axes are different lengths. None of them meet at  $90^\circ$ . Minerals that form in this system include amblygonite, axinite, kyanite, microcline feldspar (including amazonite and aventurine), plagioclase feldspars (including labradorite), rhodonite, and turquoise.

Gems that form in this crystal system appear as dipyrramids and two types of prisms.

Answer \_\_\_\_\_



The crystal systems previously discussed represent every variation of four-sided figures with three axes. In this system, we have an additional axis, which gives the crystals six sides. Three of these are equal in length and meet at  $60^\circ$  to each other. The C or vertical axis is at  $90^\circ$  to the shorter axes. Minerals that form in this system include apatite, beryl (including aquamarine, emerald, heliodor, and morganite), taaffeite, and zirconite.

Gems that form in this crystal system appear as hexagonal prisms and hexagonal dipyrramids.

Answer \_\_\_\_\_

