

NANO 704 – Spring 2019
Quiz 1

Please indicate answers by clearly *circling* the letter of your selection.

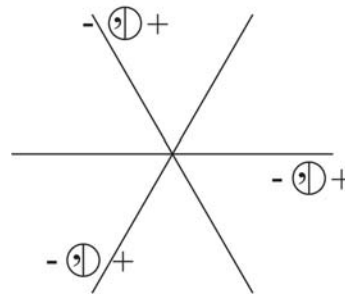
1) A transformation of a space in which all distances and angles remain unchanged is called:

- | | | |
|---------------|----------------|----------------|
| a) isobaric | b) isothermal | c) mesomorphic |
| d) isomorphic | e) nanoscopic | f) orthopedic |
| g) isometric | h) translucent | |
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2) An operation that couples a reflection with a translation parallel to the plane of reflection, is called:

- | | | |
|--------------|-------------------|-------------------|
| a) screw | b) glide | c) rotoinversion |
| d) mirror | e) rotoreflection | f) Chasles center |
| g) inversion | h) proper | |
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3) Consider the configuration shown to the right:



The symmetry can be described as $\bar{6}$, or the following:

- | | | |
|--------------|--------------|----------|
| a) $\bar{1}$ | b) $\bar{3}$ | c) $2/m$ |
| d) $3/m$ | e) m | f) mmm |
| g) 432 | h) 32 | |
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4) The following is not a point group compatible with crystals:

- | | | |
|--------|--------|--------|
| a) 1 | b) 3 | c) 4 |
| d) 23 | e) 422 | f) 352 |
| g) 432 | h) 222 | |