Dimensioning Check List

This *checklist* is intended to provide the student with a reminder of many of the dimension standards required for all drawings. The list is created, keeping in mind the most common mistakes students often make. It is NOT intended to replace what was taught in class but serve as a reminder of good dimensioning techniques.

1. Are all features located with respect to some datum or reference plane?
2. Are all features sized correctly? (circles w/diameters, arcs w/radii)
3. Is the first dimension located 3/8" (9.5mm) minimum from the object?
4. Are subsequent dimensions located ¼" (6mm) minimum apart?
5. Is the text 1/8" (3mm) high?
6. Does the extension line extend beyond the last arrowhead 1/8" (3mm)?
7. Is there 1/16" (1.5mm) between the object and the beginning of the extension line?
8. Arrowheads are 1/8" (3mm) long minimum and drawn at a 3:1 ratio?
9. Leaders are drawn to 30°, 45°, or 60° degree angles whenever possible.
10. Longer dimensions are furthest from the object.
11. Stagger stacked dimensions.
12. Use unidirectional system of dimensioning for mechanical drawings.
13. Break object into geographical shapes when dimensioning.
14. Dimension features where they appear in the profile.
15. Do NOT double dimension. Omit superfluous dimensions.
16. Do NOT use chain dimensioning.
17. Dimension between views whenever possible.
18. Give the diameter of a circle, not the radius. Use the ø before the dimension.
19. Place the abbreviation R before giving the radius of an arc.
20. Give dimensions from centerlines, finished surfaces, or datum's where needed.
21. In general, dimensions should be placed outside the view.
22. Datum points are considered theoretical exact locations.
23. Are negative cylinders dimensioned with a leader line?
24. Are positive cylinders dimensioned with a dimension line?
25. Avoid dimensioning to hidden lines if possible.

Remember: *there are no hard-and-fast rules or practices that are* ***not subject to change*** *under special conditions or needs of a particular industry. However, when there is a variation of any rule, there must be a reason to justify it.*