General Rules for Dimensioning

Please note that any rule can be broken with a good enough reason. These are more like guidelines. Following these rules results in good dimensioning practices. ***The first rule is the most important and the rest all have roughly equal importance.***

1. Dimensions should NOT be duplicated, or the same information given in two different ways. Don't over-define or under-define the object.
2. No unnecessary dimensions should be used – only those needed to produce or inspect the part.
3. Dimensions should be placed at finished surfaces or important center lines.
4. Dimensions should be placed so that it is not necessary for the observer to calculate, scale or assume any measurement (except for repeated circles).
5. Dimensions should be attached to the view that best shows the shape of the feature to be dimensioned.
6. Avoid dimensioning to hidden lines whenever possible.
7. Dimensions should not be placed on the object, unless that is the only clear option.
8. Overall dimensions should be placed the greatest distance away from the object so that intermediate dimensions can nest closer to the object to avoid crossing extension lines.
9. A dimension should be attached to only one view (i.e., extension lines should not connect two views).
10. Never cross dimension lines.
11. Avoid crossing extension lines when possible.
12. A center line may be extended and used as an extension line.
13. Leaders should slope at a 30, 45 or 60 degree angle.
14. Dimension numbers should be centered between arrowheads, except when using stacked dimensions where the numbers should be staggered.
15. In general, a circle is dimensioned by its diameter; an arc by its radius.
16. Holes should be located by their center lines.
17. Holes should be located (but not necessarily dimensioned) in the view that shows the feature as a circle.
18. Extension lines start approximately 1/16" from the object and extend 1/8" past the last dimension.
19. The first dimension is approximately ½" from the object and each associated dimension spaced uniformly approximately 3/8" apart.