

What Are The 10 Fundamental Rules Of Dimensioning

DIMENSIONING

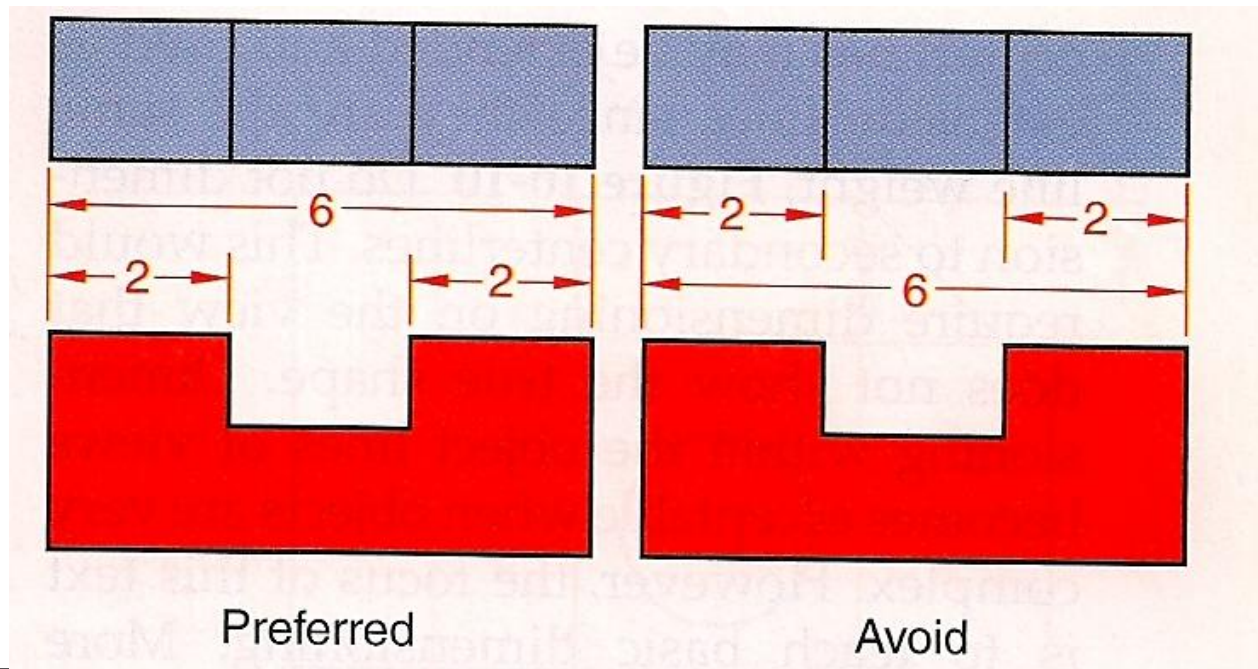
- It is important to realize that the main purpose for creating, dimensioning and noting a drawing is to communicate the size and shape of the product so that the person making the product can do so as easily and accurately as possible.
- Dimensions define the size and location details (geometric features) of an object and give the overall size of the object.

DIMENSIONING

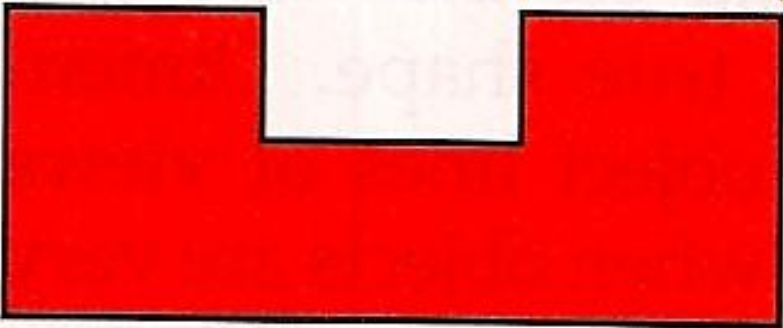
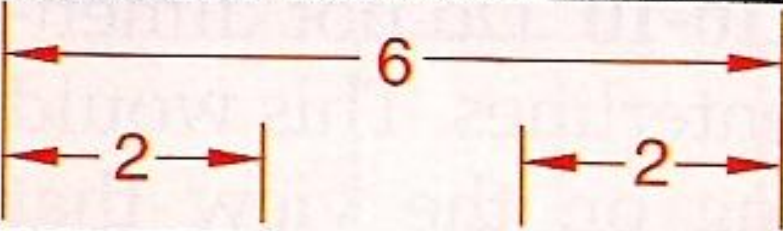
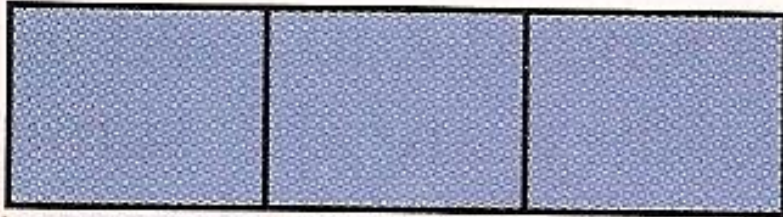
- For Clarity, dimensions should conform to the following general rules.

1

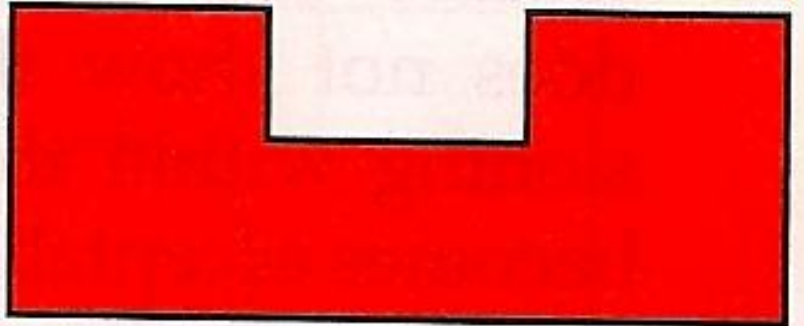
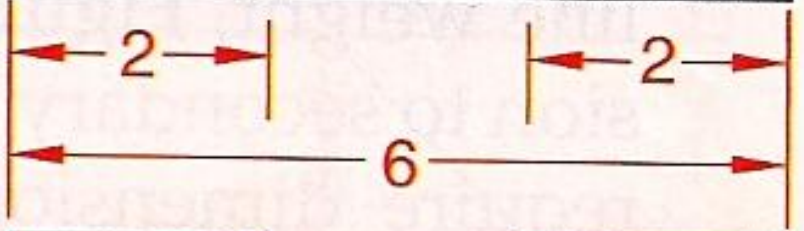
- Place location and size dimensions on the views that show the true shape of the detail being dimensioned. In most cases, dimensioning to hidden lines is not acceptable.



1



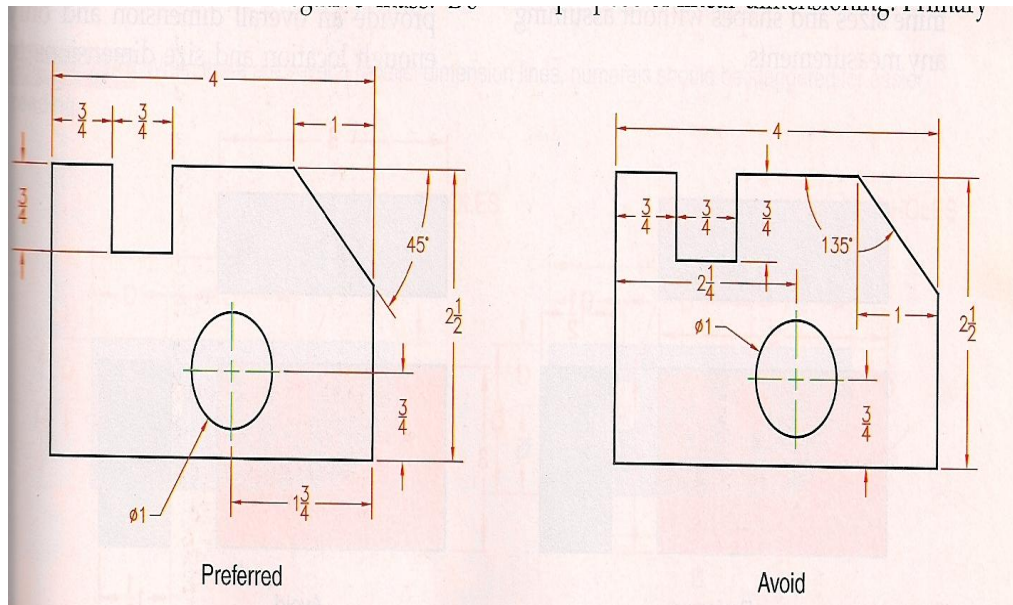
Preferred



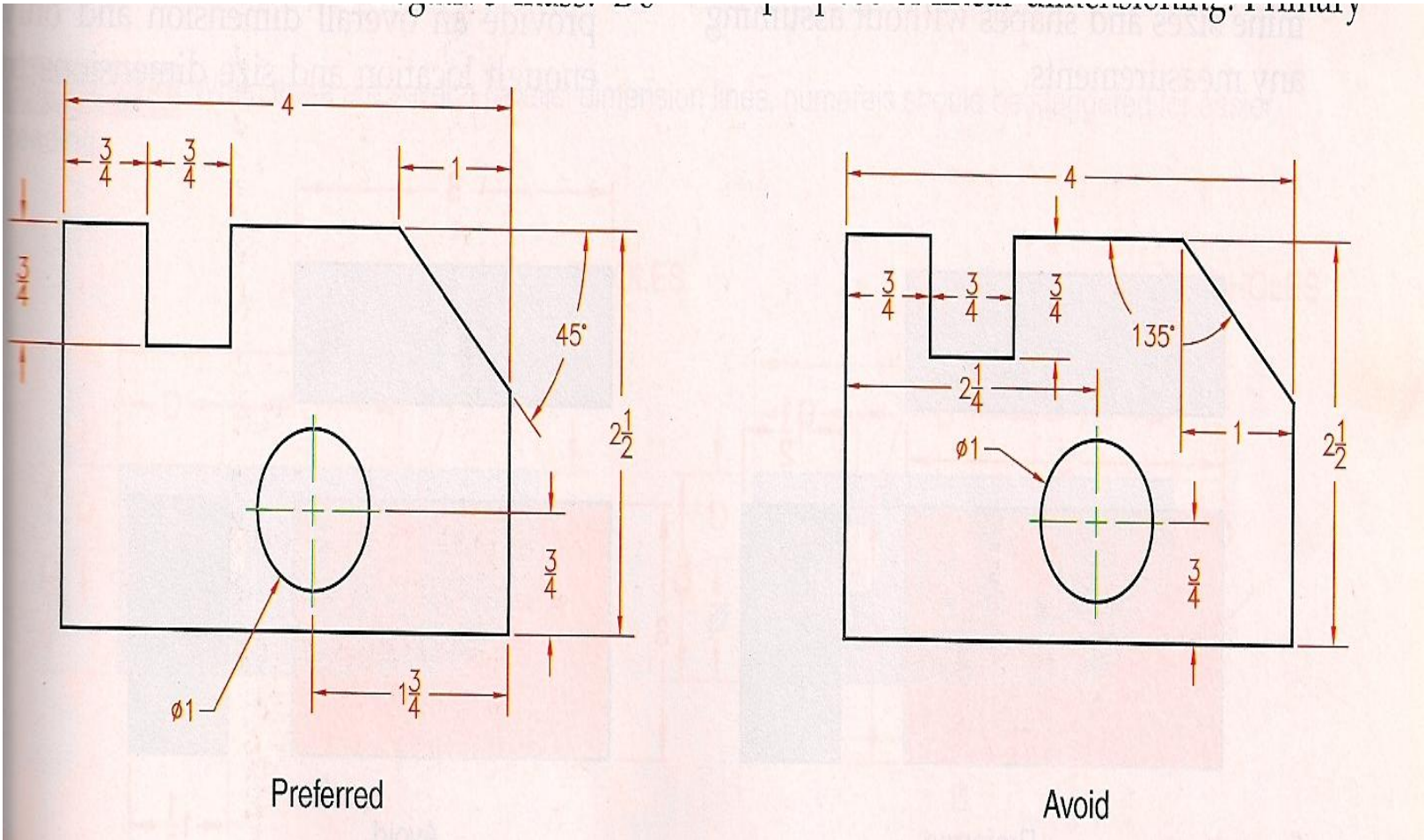
Avoid

2

- Unless absolutely necessary, dimensions should not be placed within the outlines (outer edges of the view). Instead extension lines should be used to extend the profiles and features of the object around a perimeter.

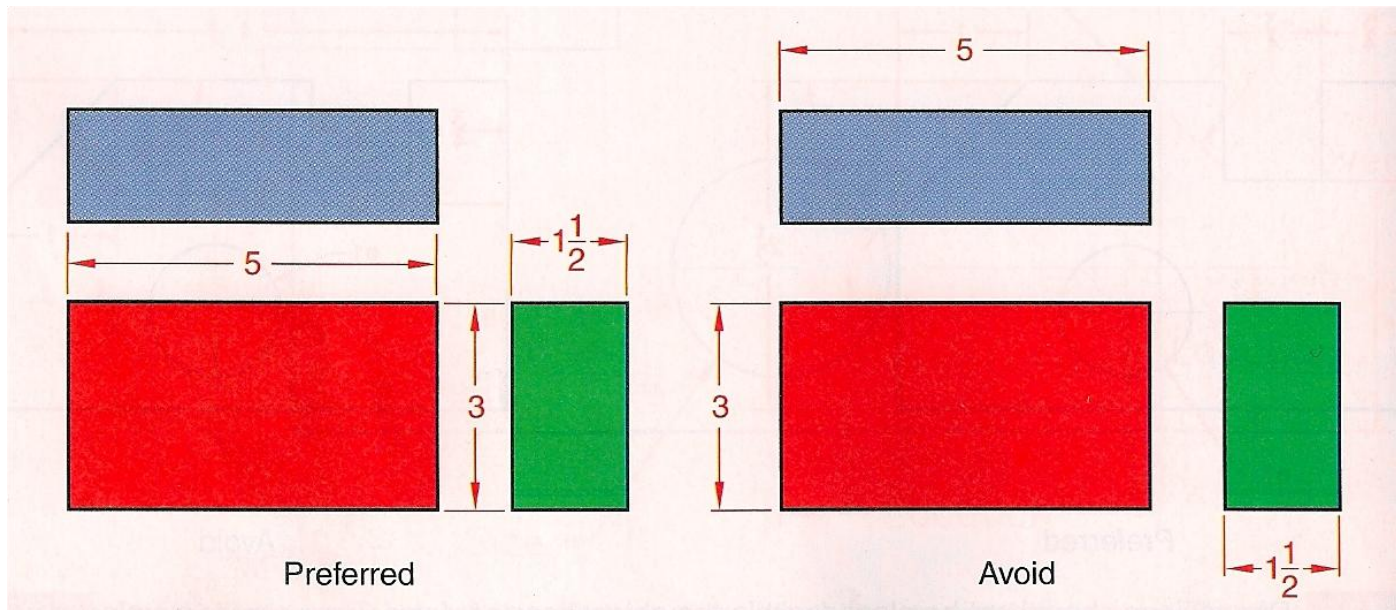


2

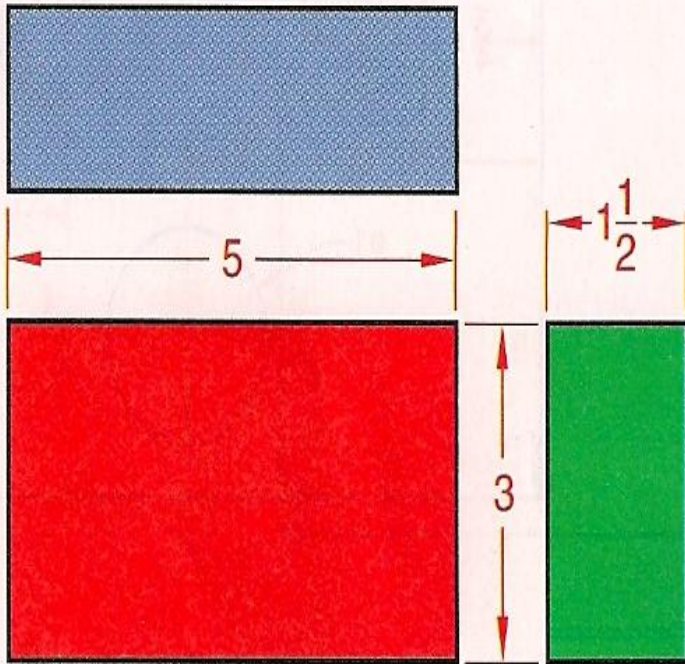


3

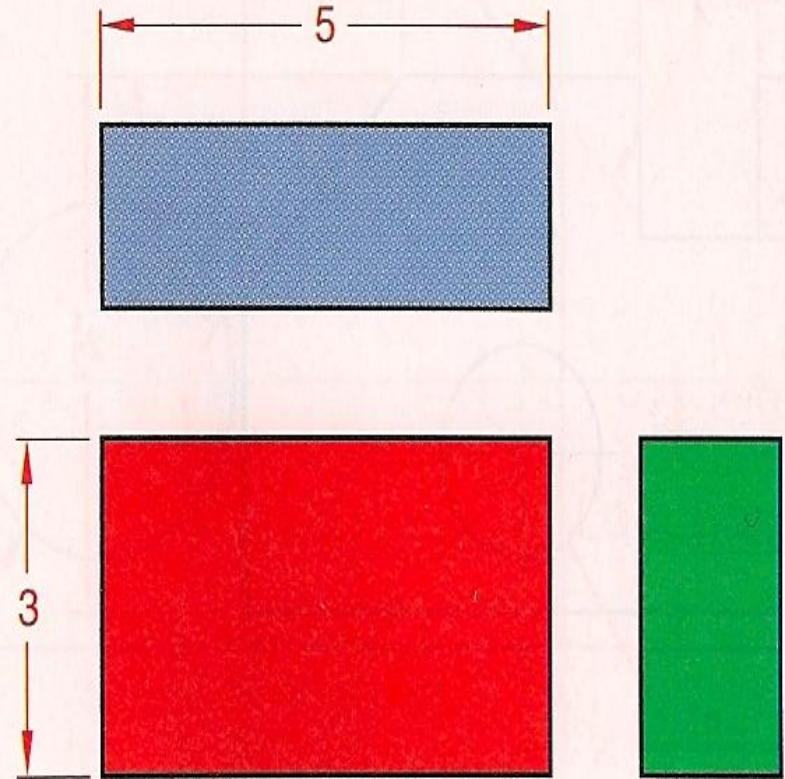
- If possible, dimensions should be grouped together rather than scattered about the drawing.



3



Preferred



Avoid

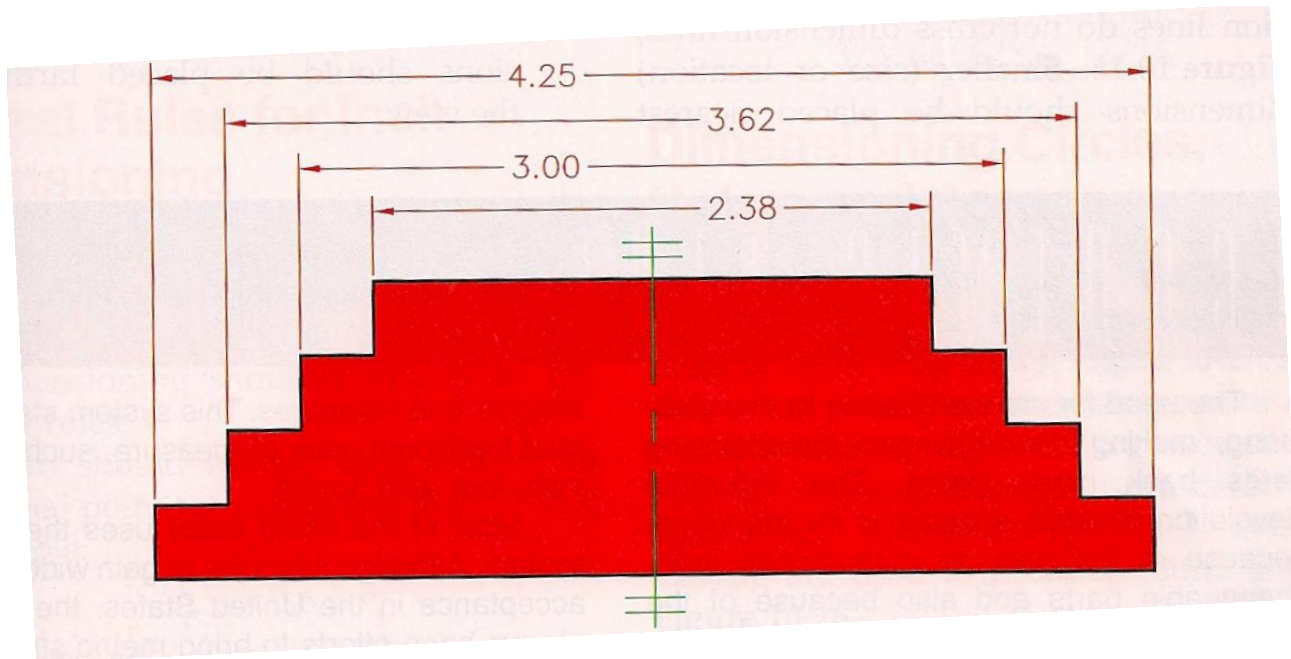
$1\frac{1}{2}$

4

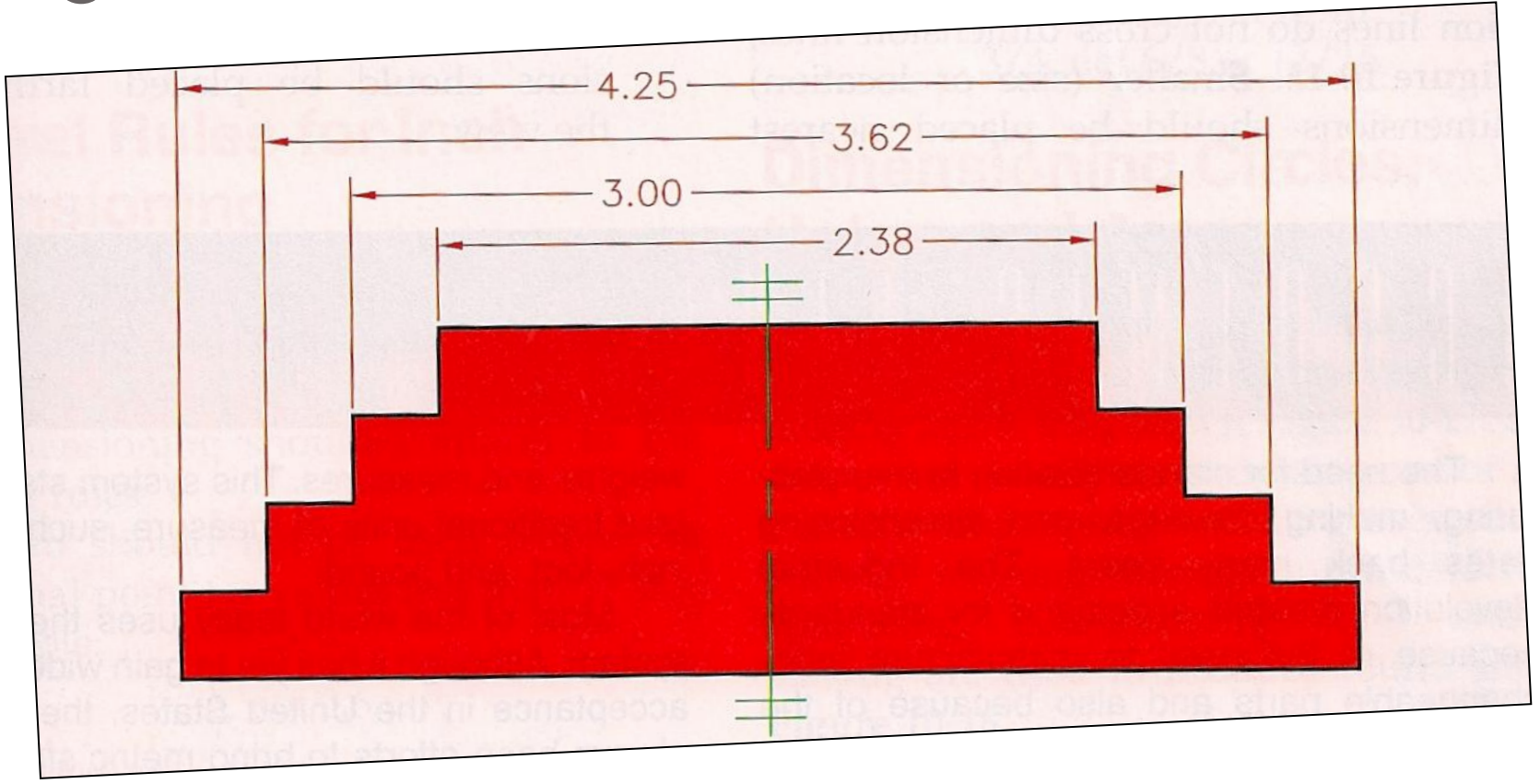
- Dimensions should be complete, no measuring or scaling of the drawing should be necessary for manufacturing the object.

5

- Draw dimension lines parallel to the direction of the measurement.

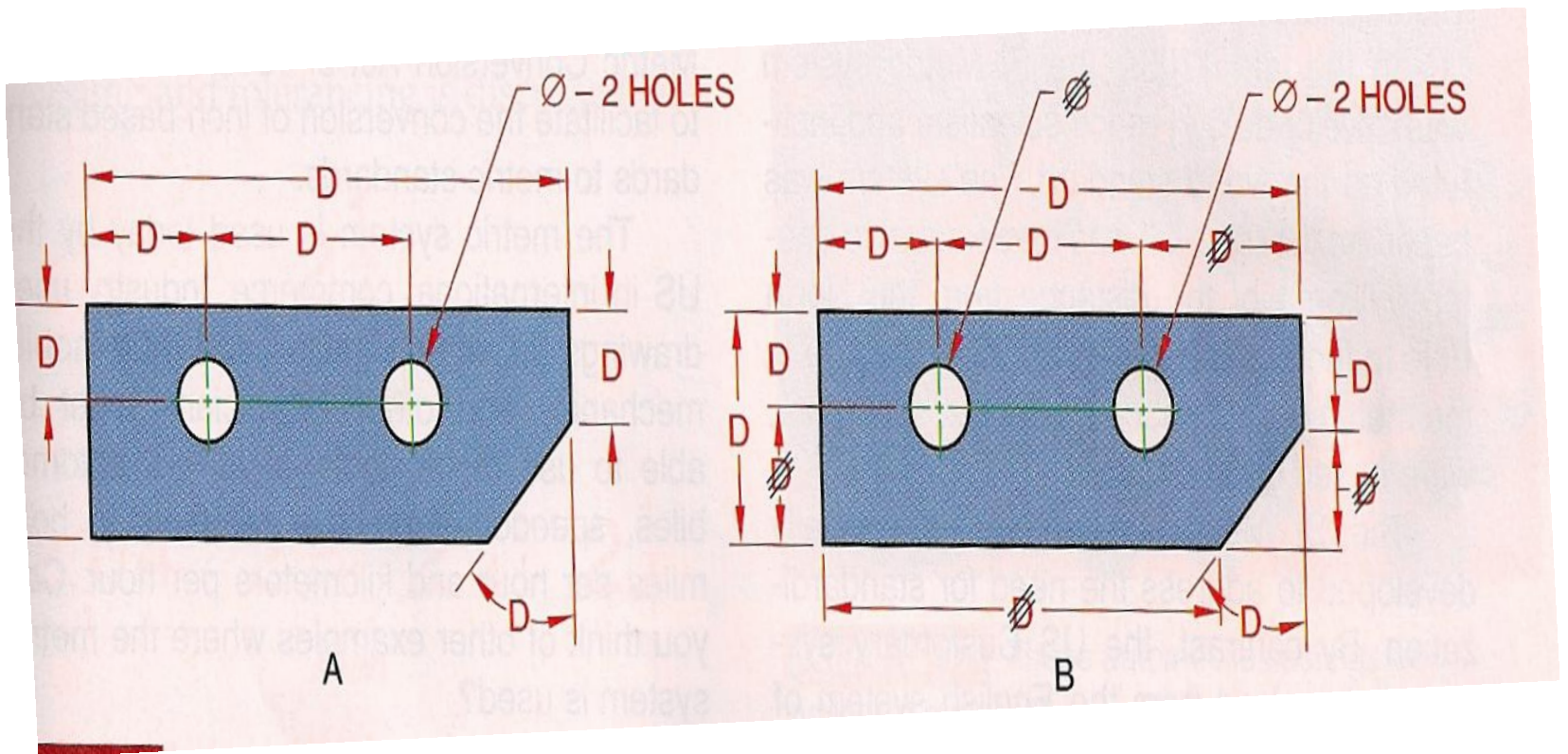


5

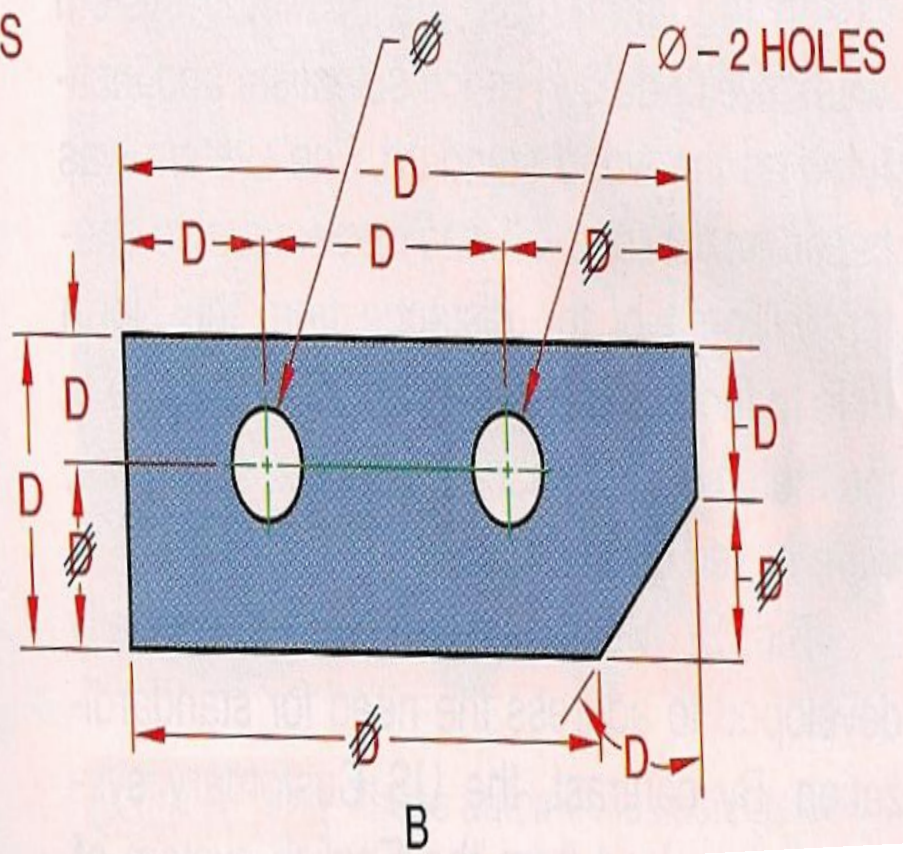
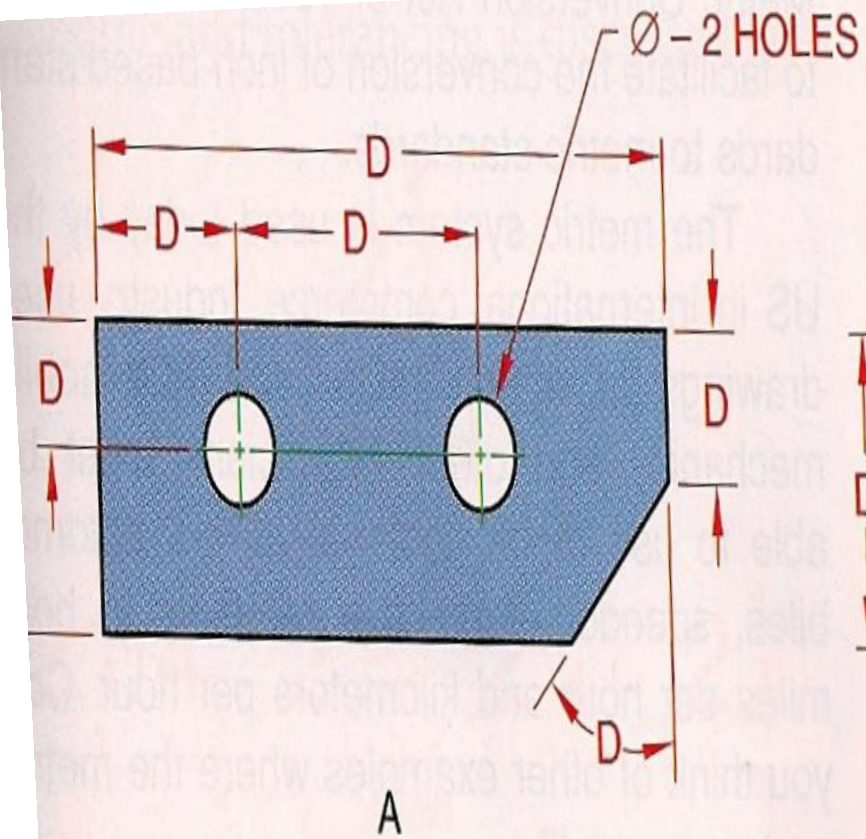


6

- Dimensions should not be duplicated unless they are absolutely necessary.

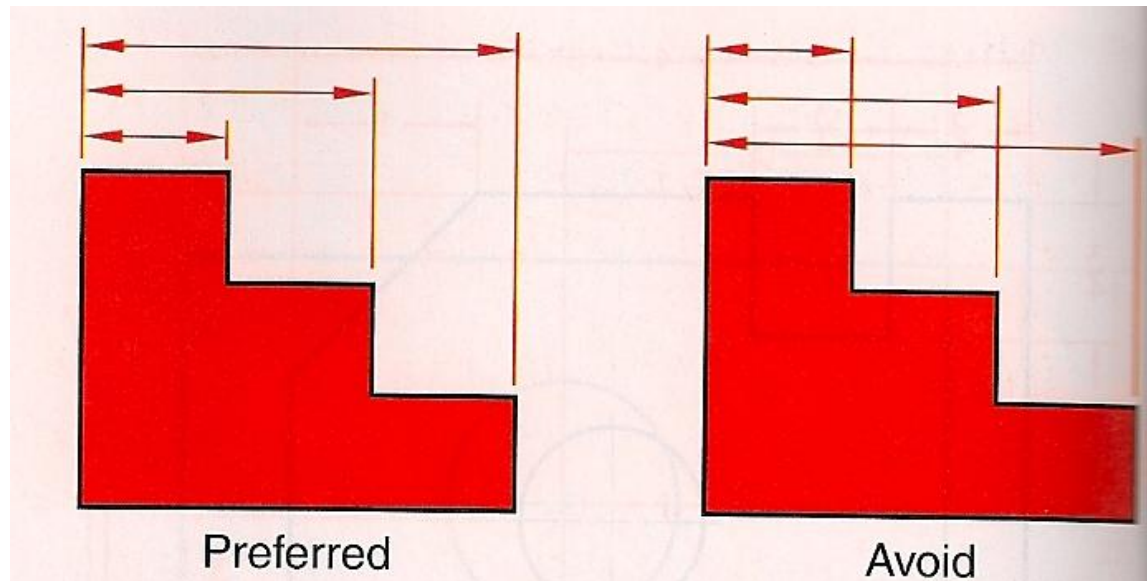


6

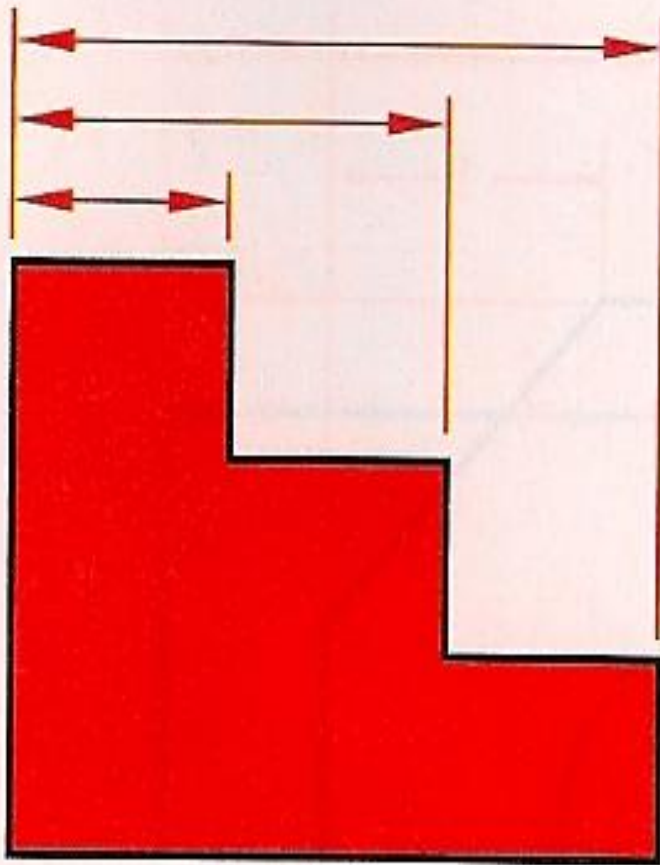


7

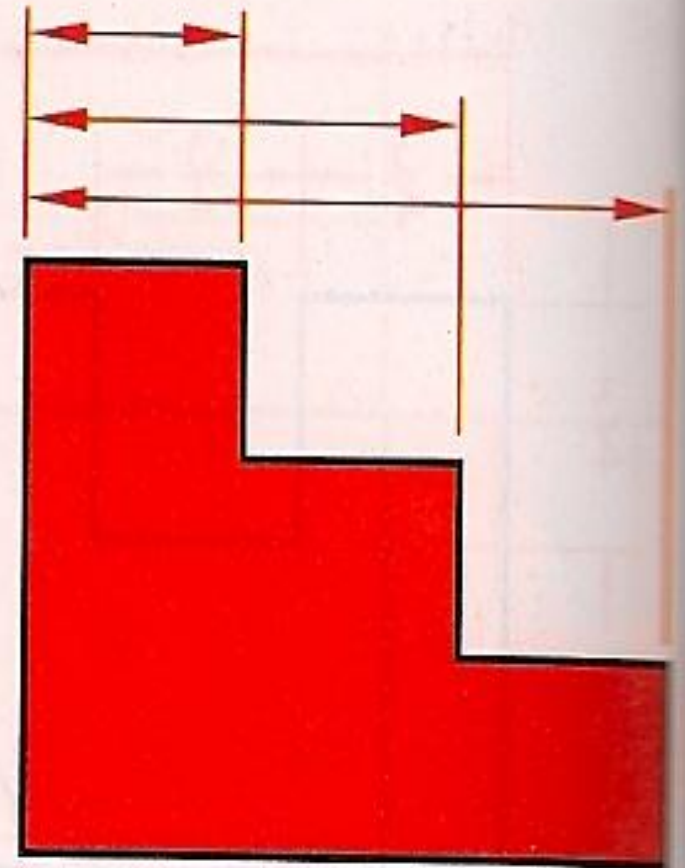
- Plan your work carefully so that extension lines do not cross dimension lines. Smallest dimensions should be placed nearest the objects, and larger dimensions should be placed farther from the view.



7



Preferred



Avoid

8 / 9 / 10

- When all dimensions on a drawing are inches, the inch symbol (“”) should not be used.
- Numerals and fractions must be drawn to the proper height in relation to one another.
- Dimensions are taken from extension lines.

EXTENSION LINES

- Extension lines should not touch your object unless absolutely necessary
- Extension lines should be at least $1/16$ " away from your object.

SUMMARY

- Why should we dimension drawings?
- When should you not use the inch symbol when dimensioning

ASSIGNMENT

- Start dimensioning Orthos 1 – 6