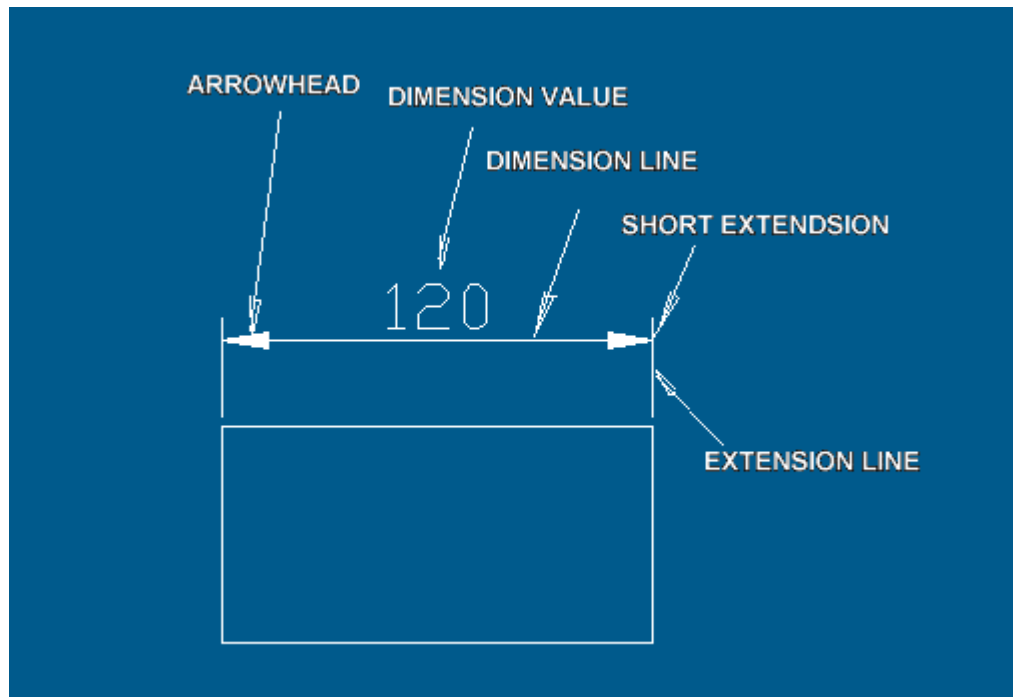


# General Rules for Dimensioning

These are the name of the dimension parts:



Put attention to the figure.

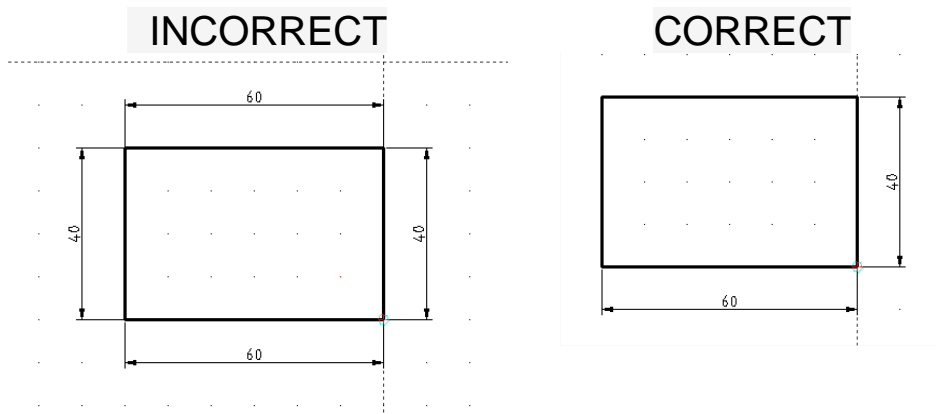
- The arrowheads have to touch the extension lines.
- The extension lines have to point the segment or figure we want to dimension.
- The extension lines should be outside the figure (if it is possible).
- The dimension lines and the extension lines are thin lines.

## DIMENSION RULES

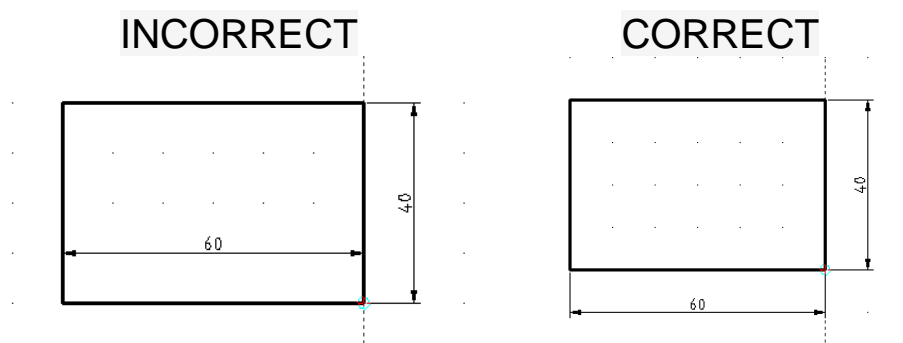
Please note that any rule can be broken with a good enough reason. These are more like guidelines.

Following these rules results in good dimensioning practices. The first rule is the most important and the rest all have roughly equal importance.

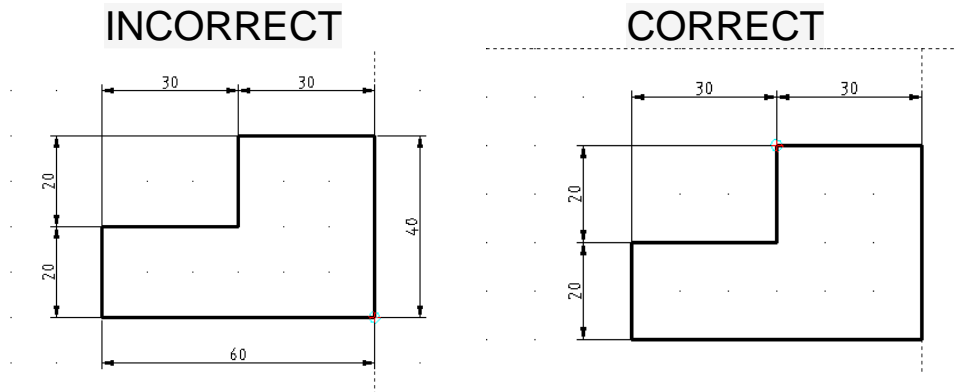
1. Dimensions should NOT be duplicated, or the same information given in two different ways. Don't over-define or under-define the object.



2. Dimensions should be placed outside the surfaces of the figure or important lines. Dimensions should not be placed INSIDE the object, unless it is the only clear option (except for circles and arcs).

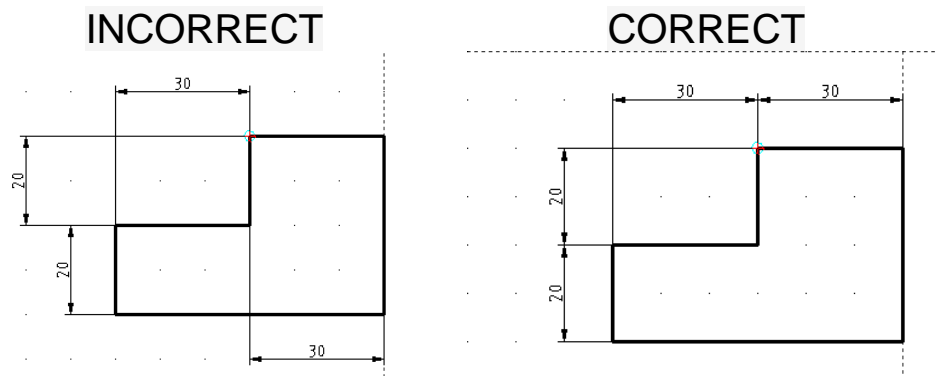


3. It is no necessary to dimension if the observer can calculate the measurement using simple additions or subtractions.

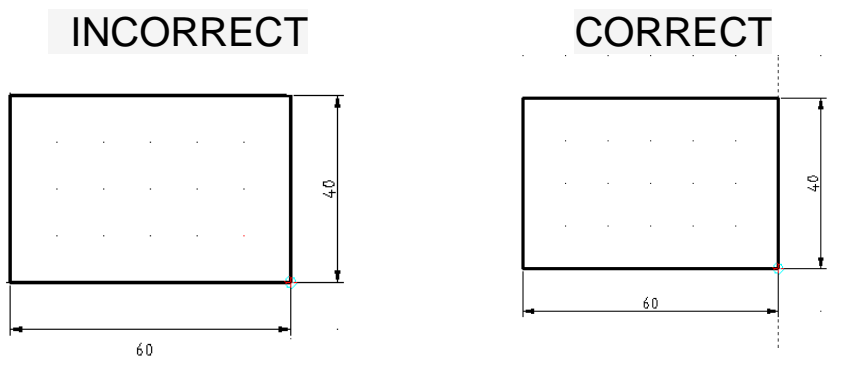


4. Dimensions should be attached to the view that best shows the shape of the feature to be dimensioned (Front view firstly and top or side view secondly).

5. Dimensions must be followed one after another whenever possible.

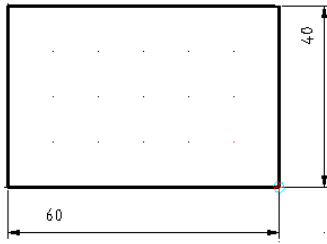


6. Dimension value is always ON the dimension line and not underneath.

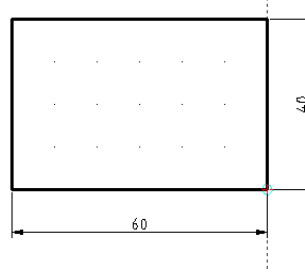


7. Dimension numbers should be centred between arrowheads.

INCORRECT



CORRECT



8. The unit for dimension are millimetres. Otherwise, we must indicate it.

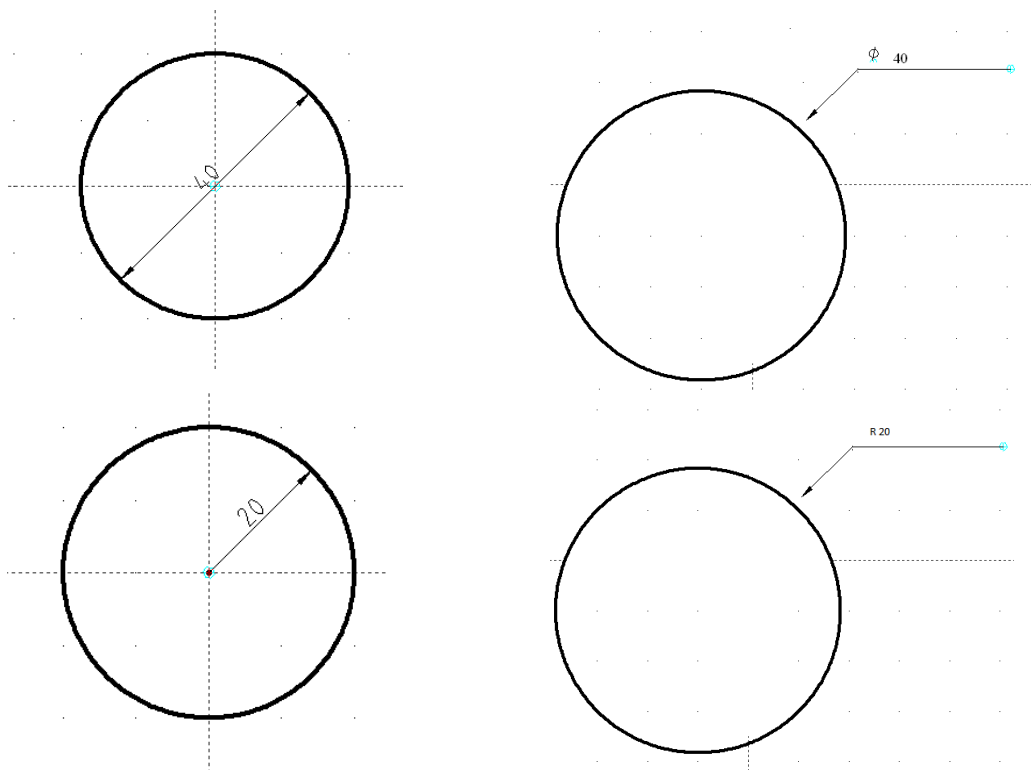
9. A centre line (or an auxiliary line) may be used as an extension line.

10. Avoid crossing dimension lines, if it is possible.

11. Avoid crossing extension lines when possible

12. Avoid dimensioning hidden lines, whenever possible.

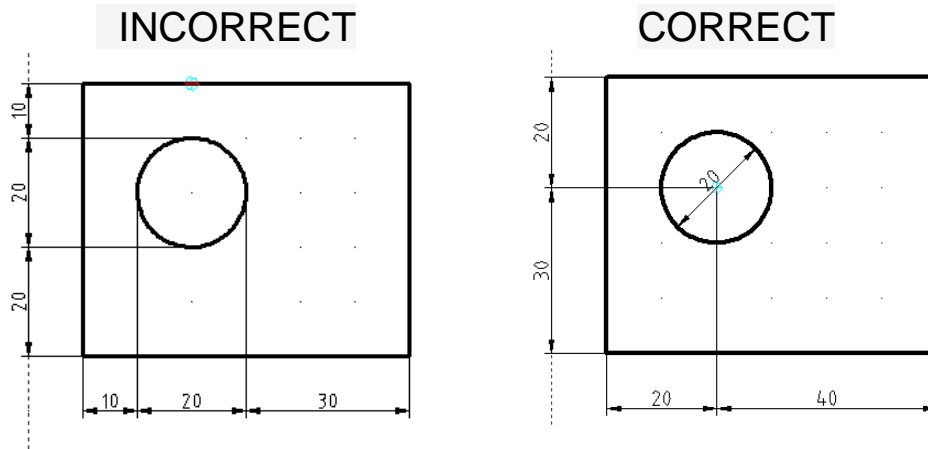
13. The correct way to dimension circles and arcs are:



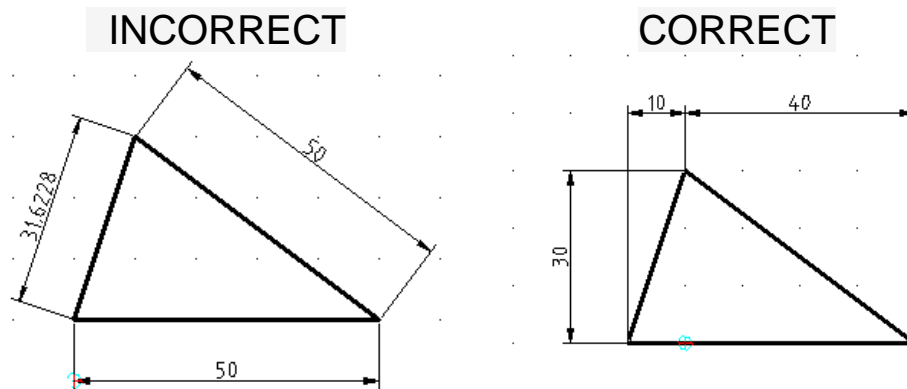
a. In general, a circle is dimensioned by its diameter; an arc by its radius.

- b. Holes should be located in the view that shows the feature as a circle.

14. Holes should be located by their centre lines

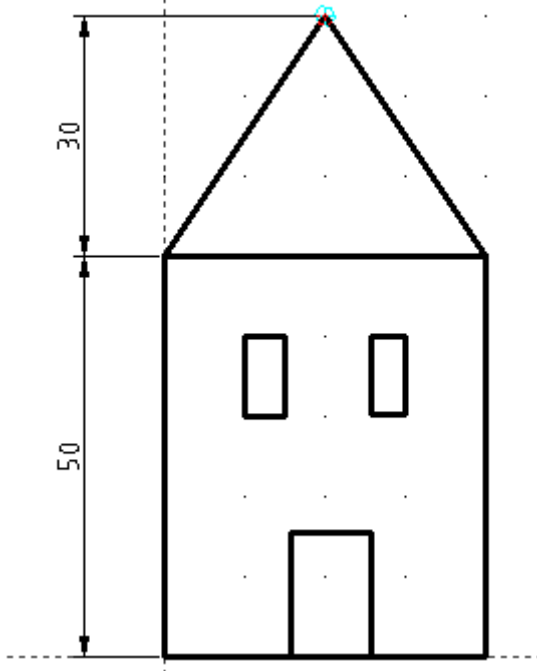


15. Dimension lines have to be parallel to the axis directions. (X and Y in 2D figures and X, Y, Z in 3D figures). Don't put dimension lines with an unknown incline.

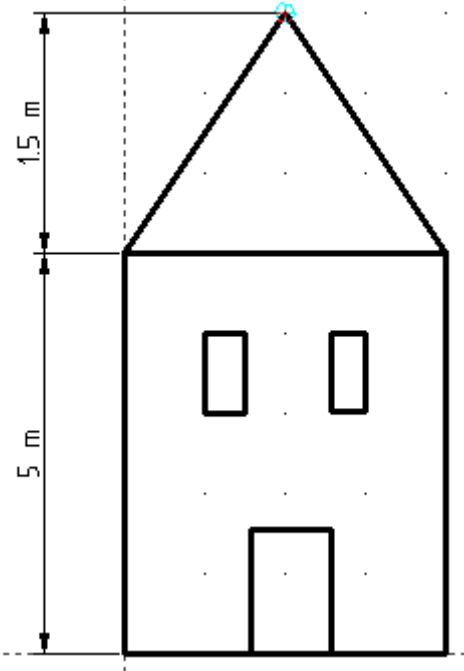


16. Always dimension the real size of the object – not the scaled size.

INCORRECT



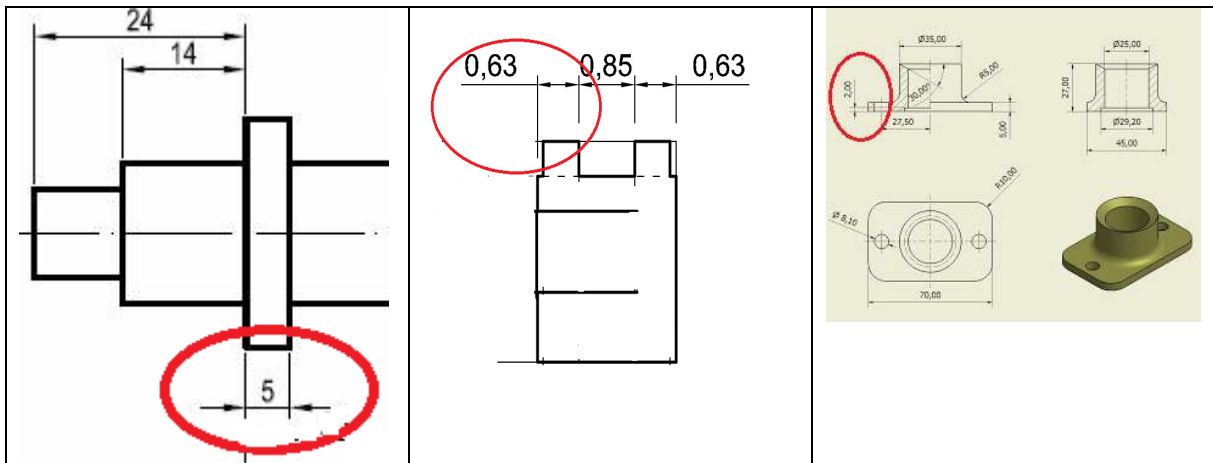
CORRECT



### 17. The correct way to dimension very small objects or segments.

If the segment is very small and you don't have space enough for the number and the arrowheads, the solution is:

- Draw the arrowheads outside and the dimension number inside the dimension line
- Draw the arrowheads inside and the dimension number outside the dimension line
- Draw the arrowheads and the number outside the dimension line



## Key words

<b>English</b>	<b>Español</b>
To dimension	Acotar
Dimension	Cota
Dimension line	Línea de cota
Arrowhead	Flecha de cota
Dimension value or dimension number	Número de cota o cifra de cota
Extension line	Línea auxiliar de cota
To measure or to size	Medir
Measurement	Medida