CASE STUDY 3.2
Process Improvement

This case is the beginning of a four-part series of cases involving process improvement. The other cases are found at the end of Chapters 4, 5, and 6. Data and calculations for this case establish the foundation for the future cases; however, it is not necessary to complete this case in order to complete and understand the cases in Chapters 4, 5, and 6. Completing this case will provide insight into the use of problem-solving techniques in process improvement. The case can be worked by hand or with the software provided.

PART 1

Figure 1 provides the details of a simplified version of a bracket used to hold a strut in place on an automobile. Welded to the auto-body frame, the bracket cups the strut and secures it to the frame with a single bolt and a lock washer. Proper alignment is necessary for both smooth installation during assembly and future performance. For mounting purposes the left-side hole, A, must be aligned on center with the right-side hole, B. If the holes are centered directly opposite each other, in perfect alignment, then the angle between hole centers will measure 0°. The bracket is created by passing coils of

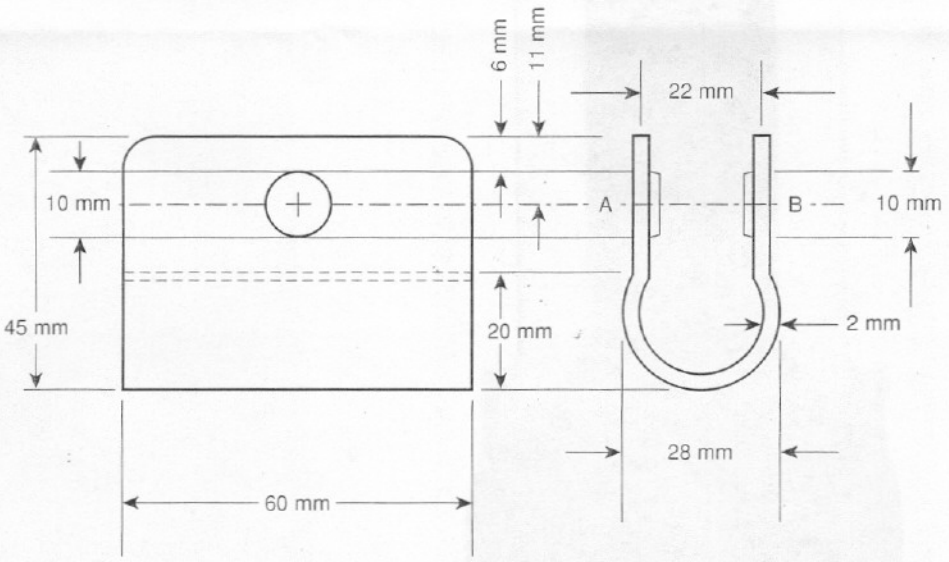

Figure 1 Bracket