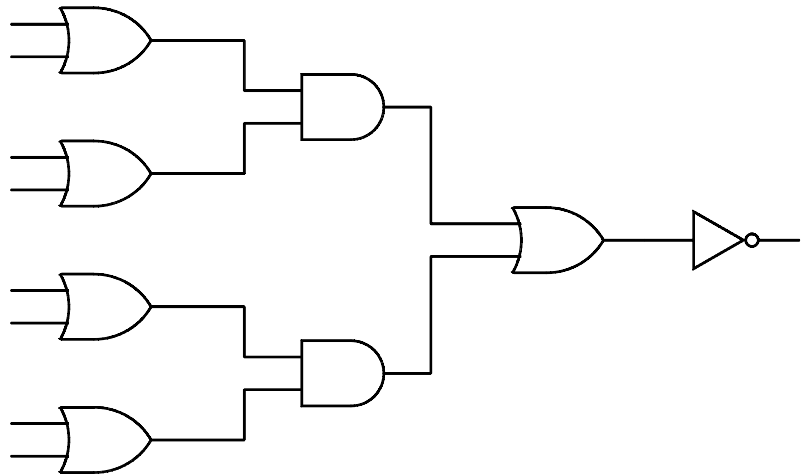## CHAPTER 20 EXERCISES

1. Logic Circuit

Open the drawing entitled **CE8EX1** from the Chapter 8 Exercises. Turn the *PICKFIRST* system variable on and turn *Grips* off. Select the objects first, then invoke the necessary commands (*Move*, *Copy*, etc.) to position each gate as shown in Figure CE20-1. Finally, connect the inputs and outputs from the gates with *Lines*. *SaveAs* **CE20EX1**.
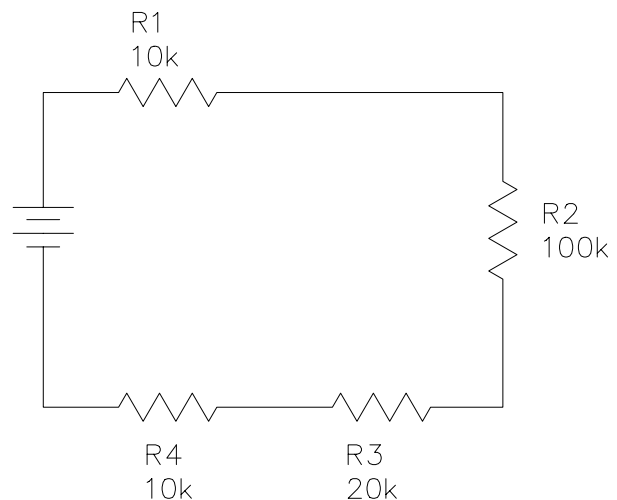
Figure CE20-1

2. Selection Filters

Open the drawing **CE16EX1** from the Chapter 16 Exercises. Create a new *Layer* named *Openings*. Use the *Object Selection Filters* to filter out the objects on the *Windows* and *Doors* layers. Use *Properties* to change the layer of the filtered objects to *Openings*. *List* one of the windows to ensure the layer is now changed. *SaveAs* **CE20EX2**.

3. Electric Circuit

Open the drawing **CE10EX1** from the Chapter 10 Exercises. *Erase* all but the resistor in the upper right corner. Use the *Group* command so you can manipulate the resistor as one entity. *Copy* and *Rotate* the resistor and add additional *Lines* and *Text* to create the drawing shown in Figure CE20-2. *SaveAs* **CE20EX3**.
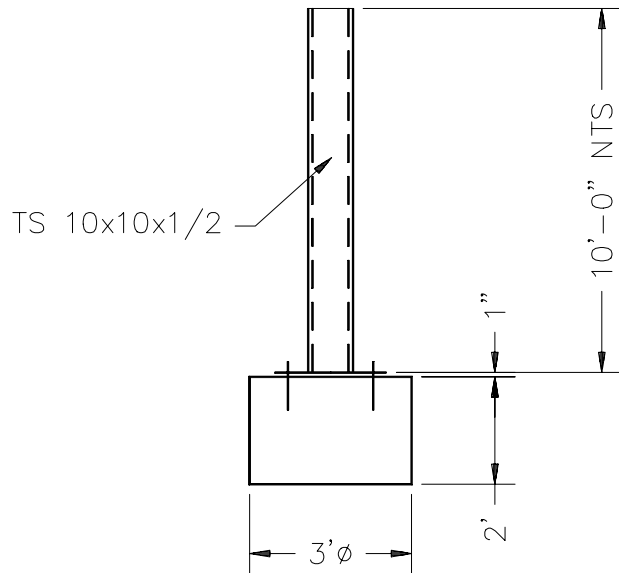
Figure CE20-2

R1
10k

R2
100k

R4
10k

R3
20k

4. Steel Framing

Figure CE20-3

Complete the drawing of the foundation
pier and column shown in Figure CE20-3.

TS 10x10x1/2

10'-0" NTS

1"

3'ø

2'

Group the items together and *Copy* them two times so there is 25′ on center spacing of the
columns. Add a floor line 6″ above the top of the foundation pier (Figure CE20-4). *SaveAs*
CE20EX4.

Figure CE20-4