CONFIGURATIONS IN SOLIDWORKS® PROBLEMS

P5-1) Create a configuration of the part given in P1-1. Make the new configuration so that every dimension except for the thickness is twice as big as original part and determine the new configuration's weight.

P5-2) Create a configuration of the part given in P1-2. Make the new configuration so that the 20 mm diameter cylinder changes to 40 mm and the length doubles. Determine the new configuration's weight.

P5-3) Create a configuration of the part given in P1-3. Create a configuration where the base thickness is 1.00 inch (instead of 0.50 inch).

P5-4) Create a configuration of the part given in P1-4. Create a configuration where the thickness of the two upright walls is 0.25 inch (instead of 0.50 inch).

P5-5) Create a configuration of the part given in P1-5. Make the added configuration twice as long as the original part and determine the new configuration's weight.

P5-6) Create a configuration of the part given in P1-6. Create a configuration where the solid cylinder on top is half the height/long and the material is Pine.

P5-7) Create a configuration of the part given in P1-7. Create a configuration where the holes are suppressed, and the part material is Brass.

P5-8) Create a configuration of the part given in P1-8. Make the added configuration have an increased diameter. Make the $\oslash$1.50 diameter, $\oslash$3.00 and determine the new configuration's weight.

P5-9) Create a configuration of the part given in P1-9. Create a configuration where the hole is suppressed, and the thickness of the part is doubled. This includes the thickness of the tab.

P5-10) Create a configuration of the part given in P1-10. Create a configuration where the hole is located 1.50 inches high (instead of 1.25) and the height of the part is 2.5 inches.

P5-11) Create a configuration of the part given in P1-11. Create a configuration where the size of the large hole is changed to 25 mm (instead of 50 mm) and the height at which the angle face starts changes to 25 mm (instead of 50 mm).

P5-12) Create a configuration of the part given in P1-12. Create a configuration where the two larger cylinder diameters are doubled.

P5-13) Create a configuration of the part given in P1-13. Create a configuration where the 100 mm dimension changes to 150 mm.

P5-14) Create a configuration of the part given in P1-14. Create a configuration where the larger hole is half the size, and the smaller holes are eliminated.

Part#1: Bottom Plate If you are just studying the basics and have not covered threads and fasteners, replace the 12X 10 – 24 UNC dimension with a 12x ⌀.19 dimension.
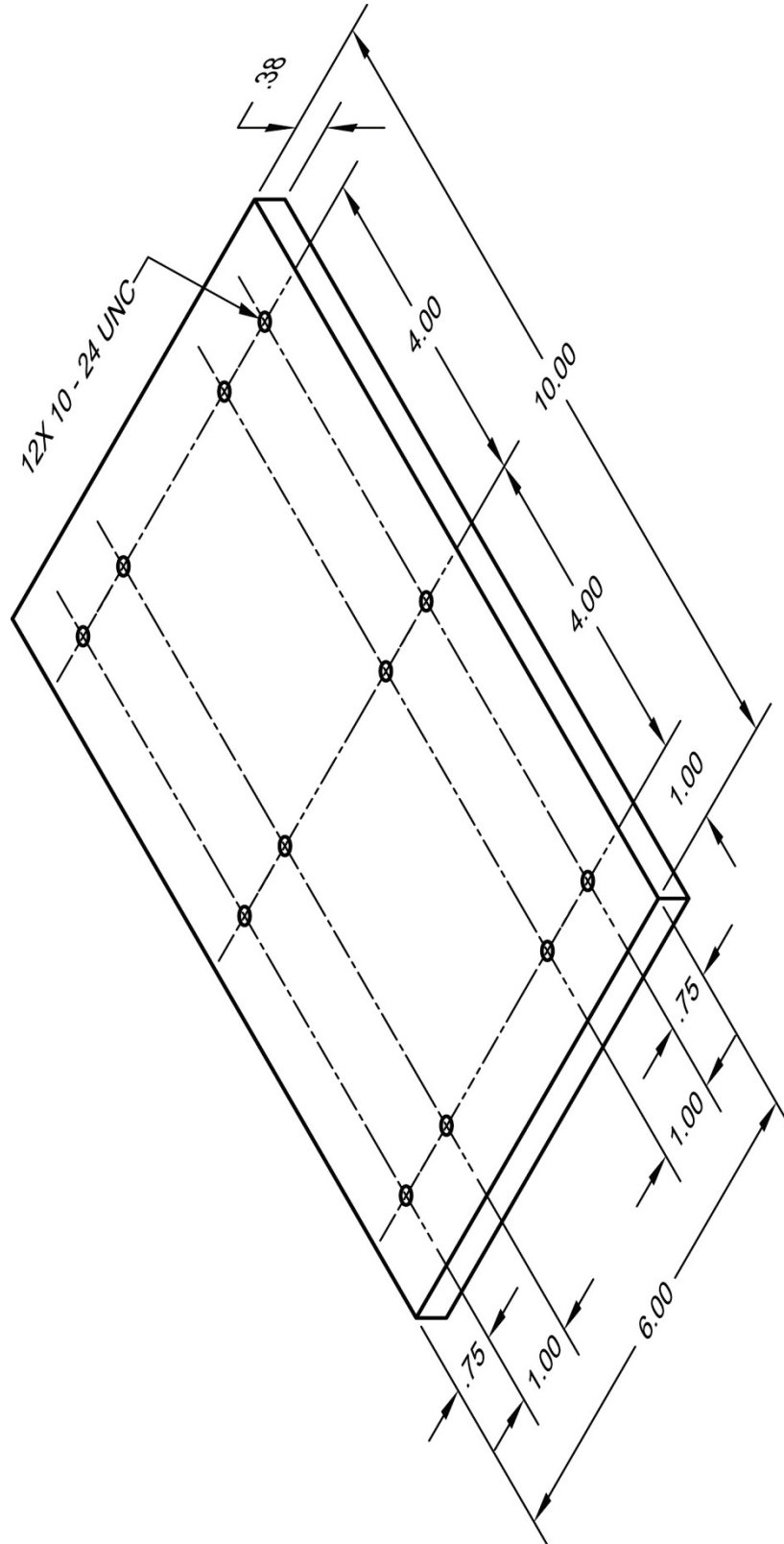
Part#3: Top Plate If you are just studying the basics and have not covered threads and fasteners, replace the 16X 10 – 24 UNC dimension with a 16x $\emptyset$.19 dimension.
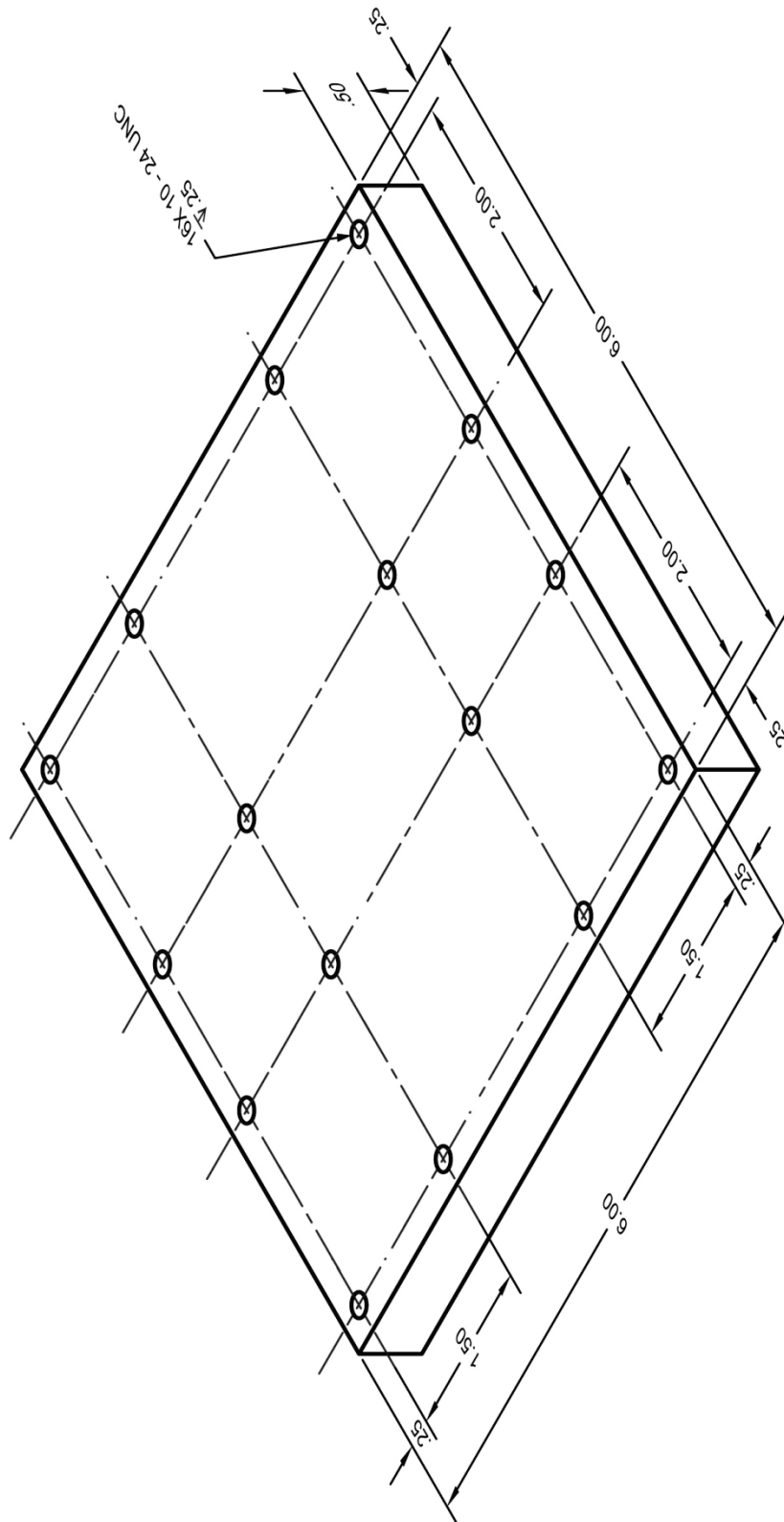
11.5.6) Applying tolerances

1) When modeling the part initially, basic sizes were used. The 2X ⌀.6250 - .6278 dimension was modeled as a 5/8-inch diameter hole. We will apply the tolerances now.

➢   See section 11.3 and 11.4 to learn about **Tolerances**.

   a) **Edit** the **Sketch** attached to the *Extruded Cut* in your *Feature Tree* that was used to create the holes.
   b) **Click** on the **diameter** dimension. If you click on the dimension value, you will have to double click.
   c) Select a tolerance appearance of **Limit**.
   d) Enter an upper limit of **0.0028**.
   e) Enter a lower limit of **0**.
   f) Number of decimal places = **4**

   g) ✔
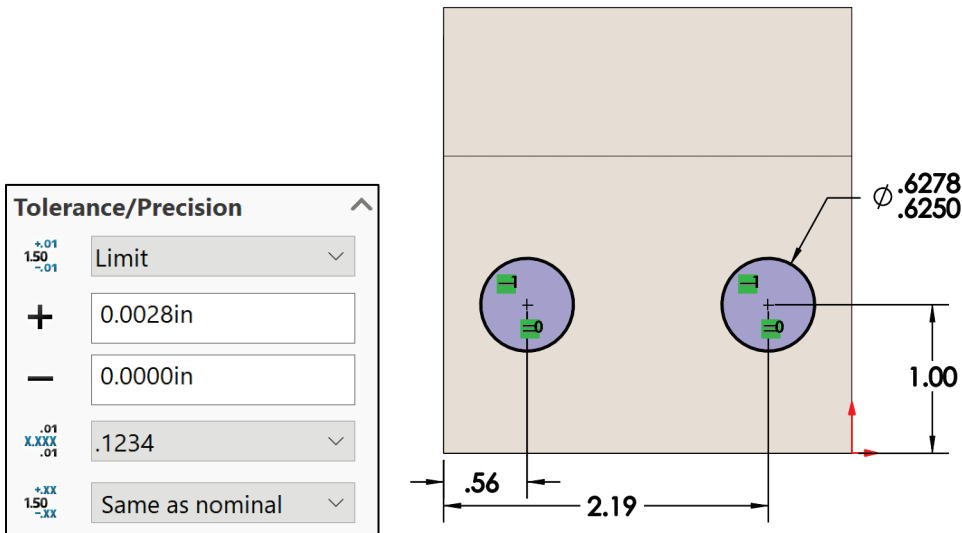
2) **IMPORTANT!! Save** and **keep** this part. It will be used in a future tutorial.