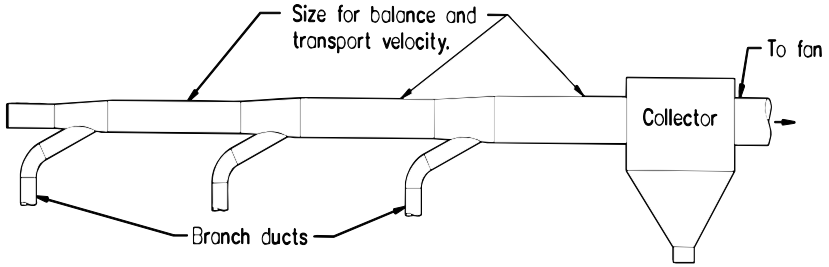
0	
1	Calculate the minimum air flow, Q_{hood}, required for a hood, expressed in cubic feet per minute [cfm], for a welding operation within 6 inches of a plain opening hood that is 6" x 12". [Assume standard air conditions.]
2	The minimum air flow in a hood, Q_{hood}, for a welding station within 6" of a plain hood opening of 6" x 12" is equal to 600 cfm. Calculate the minimum duct diameter to maintain an average air velocity in the duct of 2500 fpm as recommended in ACGIH Table. [Assume standard air conditions. Use the table on page 5-50 to convert duct surface area to the appropriate duct diameter.]
3	Calculate the expected average hood face air velocity for the hood in 2 above.
4	Conservation of mass requires that the air volumes from multiple workstations converging on a branch "wye" fitting must equal the sum of the flow rates that leave it. Calculate the tapered duct diameters on the main duct to maintain a minimum air velocity of 2500 fpm that will accommodate 3 workstations as described in problem 2 above. [Assume standard air and no losses]. Calculate the branch duct diameter for station #2
5	Calculate the branch duct diameter for station #3
6	Briefly discuss the effect of hood entry design, duct length, elbows, enlargements and contractions, wyes, branch entry and fan inlets on frictional and dynamic losses in a LEV system.