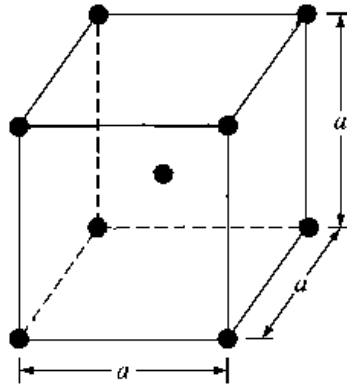1.17 A body-centered cubic lattice has a lattice constant of 4.83 Å. A plane cutting the lattice has intercepts of 9.66 Å, 19.32 Å, and 14.49 Å along the three cartesian coordinates. What are the Miller indices of the plane?

Here, $a = 4.83$ Å.

Form triplet from x-, y-, & z-intercepts

$$\Rightarrow (9.66 \text{ Å}, 19.32 \text{ Å}, 14.49 \text{ Å}) = (2a, 4a, 3a)$$

Invert each entry in triplet $\Rightarrow$ $(1/2a, 1/4a, 1/3a)$

Multiply triplet by (lcd)a $\Rightarrow$ $12a \,(1/2a, 1/4a, 1/3a) = (6, 3, 4)$

Drop commas to get Miller indices $\Rightarrow$ **(6 3 4)**