



(a) The place values for 101.011 (bin).

$$\begin{array}{rcl}
 1 & \frac{1}{8}\text{'s place} & = 0.125 \\
 1 & \frac{1}{4}\text{'s place} & = 0.25 \\
 0 & \frac{1}{2}\text{'s place} & = 0.0 \\
 1 & 1\text{'s place} & = 1.0 \\
 0 & 2\text{'s place} & = 0.0 \\
 1 & 4\text{'s place} & = 4.0 \\
 \hline
 & & 5.375 \text{ (dec)}
 \end{array}$$

(b) Converting 101.011 (bin) to decimal.