

$$\begin{array}{c}
 \downarrow \text{ not equal } \downarrow \qquad \qquad \downarrow \text{ equal } \downarrow \\
 (3.14 \times 10^{-2}) + (1.2 \times 10^{-4}) = (3.14 \times 10^{-2}) + (0.012 \times 10^{-2}) \\
 \uparrow \qquad \text{The decimal is moved} \qquad \uparrow \\
 \text{to the left to increase} \qquad = (3.14 + 0.012) \times 10^{-2} \\
 \text{the exponent} \qquad \qquad = 3.152 \times 10^{-2}
 \end{array}$$