Wind Conversion

From the user, we are given a wind value and the unit to convert.

To convert between miles per hour (mph) **and knots** (kts)**:**

$$Wind_{kts} = 0.8689762 \times Wind_{mph}$$

$$Wind_{mph} = 1.1507794 \times Wind_{kts}$$

To convert between miles per hour (mph) **and meters per second** $\left(\frac{m}{s}\right)$**:**

$$Wind_{\frac{m}{s}} = 0.44704 \times Wind_{mph}$$

$$Wind_{mph} = 2.23694 \times Wind_{\frac{m}{s}}$$

To convert between miles per hour (mph) **and feet per second** $\left(\frac{ft}{s}\right)$**:**

$$Wind_{\frac{ft}{s}} = 1.46667 \times Wind_{mph}$$

$$Wind_{mph} = 0.681818 \times Wind_{\frac{ft}{s}}$$

To convert between miles per hour (mph) **and kilometers per hour** $\left(\frac{km}{h}\right)$**:**

$$Wind_{\frac{km}{h}} = 1.609344 \times Wind_{mph}$$

$$Wind_{mph} = 0.621371 \times Wind_{\frac{km}{h}}$$

To convert between knots (kts) **and meters per second** $\left(\frac{m}{s}\right)$**:**

$$Wind_{\frac{m}{s}} = 0.5144444 \times Wind_{kts}$$

$$Wind_{kts} = 1.9438445 \times Wind_{\frac{m}{s}}$$

To convert between knots (kts) **and feet per second** $\left(\frac{ft}{s}\right)$**:**

$$Wind_{\frac{ft}{s}} = 1.6878099 \times Wind_{kts}$$

$$Wind_{kts} = 0.5924838 \times Wind_{\frac{ft}{s}}$$

To convert between knots (kts) **and kilometers per hour** $\left(\frac{km}{h}\right)$**:**

$$Wind_{\frac{km}{h}} = 1.852 \times Wind_{mph}$$

$$Wind_{mph} = 0.5399568 \times Wind_{\frac{km}{h}}$$

To convert between meters per second $\left(\frac{m}{s}\right)$ **and feet per second** $\left(\frac{ft}{s}\right)$**:**

$$Wind_{\frac{m}{s}} = 0.3048 \times Wind_{\frac{ft}{s}}$$

$$Wind_{\frac{ft}{s}} = 3.28084 \times Wind_{\frac{m}{s}}$$

To convert between meters per second $\left(\frac{m}{s}\right)$ **and kilometers per hour** $\left(\frac{km}{h}\right)$**:**

$$Wind_{\frac{km}{h}} = 3.6 \times Wind_{\frac{m}{s}}$$

$$Wind_{\frac{m}{s}} = 0.277778 \times Wind_{\frac{km}{h}}$$

To convert between feet per second $\left(\frac{ft}{s}\right)$ **and kilometers per hour** $\left(\frac{km}{h}\right)$ **:**

$$Wind_{\frac{km}{h}} = 1.09728 \times Wind_{\frac{ft}{s}}$$

$$Wind_{\frac{ft}{s}} = 0.911344 \times Wind_{\frac{km}{h}}$$