

## Unit Conversion

Determine how many dozens can be made with 552 eggs.

Determine how many eggs are in 72 dozen.

Convert 60hp to units of W. Use proper engineering format rounded to the tenths place.

Convert 186.5W to units of hp.

Convert 186.5W to units of ft·lbf/s using the two step method.

Convert 186.5W to units of ft·lbf/s using the single step method.

Convert 60hp to units of ft·lbf/s.

Write the unit equivalencies for power, pressure, volume, time, angle, and length as presented in this lecture on your cheat sheet. Identify which use engineering prefixes and which don't.

Convert the following quantities to the desired system of units.

$$1.5 \text{ MW} \Rightarrow \text{hp} \Rightarrow \frac{\text{ft} \cdot \text{lbf}}{\text{s}}$$

$$50 \text{ hp} \Rightarrow \omega \Rightarrow \frac{\text{ft} \cdot \text{lbf}}{\text{s}}$$

$$90 \text{ psi} \Rightarrow \text{bar} \Rightarrow \text{kPa}$$

$$230 \text{ kPa} \Rightarrow \text{bar} \Rightarrow \text{psi}$$

$$70 \text{ bar} \Rightarrow \text{kPa} \Rightarrow \text{psi}$$

$$190 \text{ in}^3 \Rightarrow \text{gal}$$

$$5 \text{ gal} \Rightarrow \text{in}^3$$

$$11 \text{ weeks} \Rightarrow \text{s}$$

$$\frac{\pi}{6} \text{ rad} \Rightarrow ^\circ$$

$$45^\circ \Rightarrow \text{rad}$$

$$40 \text{ cm} \Rightarrow \text{in}$$

$$72 \text{ in} \Rightarrow \text{cm}$$