

Convert 30 mph to m/s.

$$\frac{30\cancel{\text{mi}}}{1\cancel{\text{hr}}}\left(\frac{5280\cancel{\text{ft}}}{1\cancel{\text{mi}}}\right)\left(\frac{1\text{m}}{3.3\cancel{\text{ft}}}\right)\left(\frac{1\cancel{\text{hr}}}{60\cancel{\text{min}}}\right)\left(\frac{1\cancel{\text{min}}}{60\cancel{\text{sec}}}\right)=$$
$$\frac{158400\text{m}}{11880\text{sec}}=13.33\text{m/s}$$

Convert 52 m/s to mph.

$$\frac{30\cancel{\text{m}}}{1\cancel{\text{sec}}}\left(\frac{3.3\cancel{\text{ft}}}{1\cancel{\text{m}}}\right)\left(\frac{1\text{mi}}{5280\cancel{\text{ft}}}\right)\left(\frac{60\cancel{\text{sec}}}{1\cancel{\text{min}}}\right)\left(\frac{60\cancel{\text{min}}}{1\text{hr}}\right)=$$
$$\frac{356400\text{mi}}{5280\text{hr}}=67.5\text{m/s}$$