

200712101552

Convert 1 km/hr into miles/week

$$V = \frac{1 \text{ km}}{1 \text{ hr}} \cdot \frac{1000 \text{ m}}{1 \text{ km}} = \frac{1000 \text{ m}}{1 \text{ hr}} \cdot \frac{24 \text{ hr}}{1 \text{ day}} \cdot \frac{7 \text{ day}}{1 \text{ week}} =$$

$$= \frac{(1000)(\cancel{24})(7) \text{ m}}{1 \text{ week}} \cdot \frac{100 \text{ cm}}{1 \text{ m}} \cdot \frac{1 \text{ in}}{2.54 \text{ cm}} \cdot \frac{1 \text{ ft}}{12 \text{ in}} =$$

$$= \frac{(1000)(\cancel{2})(7)(\cancel{100}) \text{ ft}}{\frac{2.54 \text{ weeks}}{1.27}} \cdot \frac{1 \text{ mi}}{5280 \text{ ft}}$$

$$= \frac{(1000)(7)(10) \text{ mi}}{(1.27)(528) \text{ wk}} \cdot \frac{100}{100} =$$

$$\frac{(1000)(7)(\overset{5}{\cancel{10}})(\overset{50}{\cancel{100}}) \text{ mi}}{(127)(\overset{528}{\cancel{528}}) \text{ wk}}$$

$$= \frac{\overset{500}{(1000)}(7)(5)(25) \text{ mi}}{(127)(\overset{66}{\cancel{66}}) \text{ wk}}$$

$$= \frac{437500 \text{ mi}}{4191 \text{ week}}$$

or

$$= 104.3903603 \text{ miles/week}$$