## Challenge \#3

USCS vs Metric System
How much do you know?
You may be better at the Metric System than you think.
Try to answer all of these questions without looking up any information and without using a calculator.

|  | How many? |  | How many? |
| :--- | :--- | :--- | :--- |
| inches per <br> yard |  | cm per m |  |
| yards per mile |  | meters per km |  |
| ounces per <br> pound |  | grams $/ \mathrm{kg}$ |  |
| ounces per <br> quart |  | $\mathrm{cL} / \mathrm{L}$ |  |
| pints per <br> gallon |  | $\mathrm{Kg} / \mathrm{L}$ |  |
| pounds per <br> gallon (water) |  | cc per liter |  |
| cubic inches <br> per pint |  | $100 \mathrm{~km} / \mathrm{hr}=$ <br> $? \mathrm{~cm} / \mathrm{sec}$ |  |
| $60 \mathrm{mph}=$ <br> $? \mathrm{ft} / \mathrm{sec}$ |  |  |  |

Challenge \# 3 Solution

|  | How many? |  | How many? |
| :--- | :---: | :--- | :---: |
| inches per <br> yard | 36 | cm per m | 100 |
| yards per mile | 1760 | meters per km | 1000 |
| ounces per <br> pound (wt) | 16 | grams $/ \mathrm{kg}$ | 1000 |
| ounces per <br> quart (voluma) | 32 | $\mathrm{cL} / \mathrm{L}$ | 100 |
| pints per <br> gallon | 8 | $\mathrm{~mL} / \mathrm{L}$ | 1000 |
| pounds per <br> gallon (water) | $\sim 8.34$ | $\mathrm{Kg} / \mathrm{L}$ | 1 |
| cubic inches <br> per pint | $\sim 28.875$ | cc per liter | 1000 |
| $60 \mathrm{mph}=$ <br> $? \mathrm{ft} / \mathrm{sec}$ | $\sim 88$ | $100 \mathrm{~km} / \mathrm{hr}=$ <br> $? \mathrm{~cm} / \mathrm{sec}$ | 2778 |

