## Work each of the following problems. SHOW ALL WORK.

1. Convert 2.5 feet into inches. ( $1 \mathrm{ft}=12 \mathrm{in}$ )
2. Convert 32 centimeters into inches. ( $1 \mathrm{in}=\mathbf{2 . 5 4} \mathbf{~ c m}$ )
3. Convert 68 centimeters into feet.
4. Convert 142 weeks into years. ( $1 \mathrm{yr}=365.25 \mathrm{~d}$; 1 week = 7 d )
5. Convert 8.1 kilograms into grams.
6. Convert 376 centimeters into meters.
gpb.org/physics-motion

Work each of the following problems. SHOW ALL WORK.
7. Convert 1.5 seconds to milliseconds.
8. Convert $6,400,000$ milligrams to kilograms.
9. Convert the following numbers from standard notation to scientific notation:

$$
\begin{aligned}
&-3,600,000,000= \\
& 0.000033= \\
&
\end{aligned}
$$

$$
48,000,000=
$$

$\qquad$

$$
-0.000000053=
$$

10. Convert the following numbers from scientific notation to standard notation:
$\qquad$ $7.1 \times 10^{8}=$ $\qquad$
$-1.8 \times 10^{-3}=$ $\qquad$
