## Write the number(s) given in each problem using scientific notation.

1. The human eye blinks an average of $4,200,000$ times a year.
$4.2 \times 10^{6}$
2. A computer processes a certain command in 15 nanoseconds. (A nanosecond is one billionth of a second.) In decimal form, this number is 0.000000015.
$1.5 \times 10^{-8}$
3. There are 60,000 miles $(97,000 \mathrm{~km})$ in blood vessels in the human body.
$6 \times 10^{4} \mathrm{mi}$
$9.7 \times 10^{4} \mathrm{~km}$
4. The highest temperature produced in a laboratory was $920,000,000 \mathrm{~F}(511,000,000 \mathrm{C})$ at the Tokamak Fusion Test Reactor in Princeton, NJ, USA.
$9.2 \times 10^{8} \mathrm{~F} \quad 5.11 \times 10^{8} \mathrm{C}$
5. The mass of a proton is 0.000000000000000000000001673 grams. $1.673 \times 10^{-24} \mathrm{~g}$
6. The mass of the sun is approximately $1,989,000,000,000,000,000,000,000,000,000,000$ grams.

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1.989 \times 10^{33} \mathrm{~g}
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7. The cosmos contains approximately $50,000,000,000$ galaxies.
$5 \times 10^{10}$
8. A plant cell is approximately 0.00001276 meters wide.
$1.276 \times 10^{-5} \mathrm{~m}$

Write the number(s) given scientific notation in standard form.
9. The age of earth is approximately $4.5 \times 10^{9}$ years. $4,500,000,000 \mathrm{yr}$
10. The weight of one atomic mass unit (a.m.u.) is $1.66 \times 10^{-27} \mathrm{~kg}$.
0.000000000000000000000001673 kg

