

## ACCEPTABLE ANSWER FORMATS

Answers must be written in correct mathematical notation. No partial credit will be awarded except for the proofs on the Power Round. Unless otherwise specified, all answers must be *exact* and *simplified*.

Graders will take a reasonably lenient interpretation of *simplified* based on the following guidelines and examples. Answers that are not *simplified* will be marked as incorrect. The decisions of the SMT coordinators are final.

Here are some general guidelines for answer simplification. Unless otherwise stated:

- Carry out any reasonable calculations. For instance, you should evaluate any expressions which will take negligible time to evaluate (such as  $\frac{1}{2} + \frac{1}{3}$ ). Unreasonable calculations include large powers (e.g.  $7^8$ ), large factorials, large products, and trigonometric functions which cannot be expressed in terms of radicals.
- Write rational numbers in lowest terms. Decimals are also acceptable, provided they are exact.
- Move all square factors outside radicals. For example, write  $3\sqrt{7}$  instead of  $\sqrt{63}$ .
- Denominators do *not* need to be rationalized. Both  $\frac{\sqrt{2}}{2}$  and  $\frac{1}{\sqrt{2}}$  are acceptable.
- Do not express an answer using a repeated sum or product.

Here are some examples of simplified answers, and some examples of unsimplified answers with their simplified equivalents:

<b>Examples of Acceptable Answers</b>	
879	$2^{57} + 1$
$\frac{2}{7}$	$\sqrt{\pi}$
$\frac{1}{3+\sqrt{2}}$	$\frac{\sqrt{2}}{2}$
420!	$\cos(1)$
$\binom{200}{4}$	$11 \sqrt[11]{\frac{27}{4}}$

<b>Examples of Unacceptable Answers</b>	
Unsimplified Answer	Equivalent Simplified Answer
$61 \times 17$	1037
$\sin\left(\frac{\pi}{7}\right) - \sin\left(\frac{6\pi}{7}\right)$	0
$\frac{61}{31415}$	$\frac{1}{515}$
$\sqrt{3 + 2\sqrt{2}}$	$1 + \sqrt{2}$
$\sqrt{\frac{7}{9}}$	$\frac{\sqrt{7}}{3}$
$\sin\left(\frac{\pi}{10}\right)$	$\frac{\sqrt{5}-1}{4}$