Acceptable Forms of Answers:

1. Specific instructions regarding format of answer given in a problem take precedence over any of the instructions below.

2. Units of measurement are not required in *any* answer and **should not be given.**

3. Any given data are to be regarded as exact.

4. a. In all events except the Calculator Team event, **exact** answers should be given unless otherwise specified in the problem. **ALL RATIONAL ANSWERS THAT ARE NOT INTEGERS SHOULD BE WRITTEN AS SIMPLIFIED COMMON OR IMPROPER FRACTIONS** unless otherwise specified in the problem.

   b. In all events except the Calculator Team event, **all probabilities** should be given as simplified fractions unless otherwise specified in the problem. In the Calculator Team event, probabilities should be expressed as decimals rounded to four significant digits unless otherwise specified in the problem.

   c. In the Calculator Team event, final answers **must** be rounded to four significant digits unless otherwise specified in the problem, using the rounding conventions listed in #7.

5. **Fractions As Answers**

   a. All fractional answers, including improper fractions, must be reduced to lowest terms.

   b. Use horizontal fraction bars instead of slash marks. Ambiguous answers involving slash marks will be marked wrong.

   Examples:

   If $\frac{5}{x+y}$ is correct, $5 / x + y$ is not equivalent and not correct

   $5 / 2x$ is ambiguous and will be marked incorrect.

6. **Radicals/Radical Expressions As Answers**

   All radicals and radical expressions must be simplified. Radicals are not to be left in the denominator of a fraction.

7. **Approximations As Answers**

a. In the event a correct answer involves an approximation, all relevant rounding should be made **only at the end** of the problem.

b. When an approximation is called for, final answers must be rounded to four significant digits unless otherwise specified in the problem.

Use the following convention for mathematically rounding to four significant digits: if the fifth significant digit is 5 through 9, round to the higher digit; if it is 0 through 4, truncate.

Examples:

Positive real numbers:	3.4567 would be rounded to 3.457 107.349 would be rounded to 107.3
Negative real numbers:	-5.0685 would be rounded to –5.069 -.028672 would be rounded to -.02867
Integers:	513,469 would be rounded to 513,500 (comma optional)

c. Trailing zeroes are necessary when **ROUNDING** if the trailing zero is significant. For example, 56.8035 **MUST** be written as 56.80 when rounded to 4 significant digits in decimal form, and **MUST** be written as $5.680 \text{ X } 10^1$ or 5.680 X 10 when written in scientific notation form because the trailing zero is significant for a rounded number.

8. Exact answer **expressions** may be written as a sum of terms with common factors or as a product of a factor and an expression with relatively prime coefficients. Integers are **relatively prime** if the only common factor of all the integers is 1 or -1.

Acceptable:	$20x+30$ *or* $10(2x+3)$	$40+20\sqrt{5}$ *or* $20\left(2+\sqrt{5}\right)$	$15+12\pi$ *or* $3(5+4\pi)$
Not Acceptable:	$5(6+4x)$	$3\left(4\sqrt{5}+12\right)$	$7(8+6\pi)$

9. Examples of acceptable and not acceptable answers:

   a. **Numeric answers** should be expressed as integers, if possible, or as simplified **common or improper fractions** (must be reduced to lowest terms) unless otherwise indicated in the question. Negative signs should be either in front of the fraction or in the numerator, not in the denominator. **DO NOT USE MIXED NUMBERS.**

   Acceptable: 11 $\frac{5}{8}$ $-\frac{7}{12}$ $\frac{24}{5}$ $\frac{-103}{15}$

   Not Acceptable: .625 $\frac{9}{24}$ $4\frac{4}{5}$ $\frac{48}{10}$ $-2\frac{2}{3}$ $\frac{16}{-7}$

   b. When **decimal** or **in decimal form** answers are specified, do not use scientific notation unless that is also specified. If an answer is exact, trailing zeroes should be left off. If an answer is rounded, trailing zeroes are significant and must be included.

   Acceptable: 2.1 8.645 .23 0.25 –6.71

   Not acceptable: 3.245×10^3 $\frac{1}{10}$ 4.60 (use 4.6 instead unless it is a rounded value)