In Expert TA, numeric answers will be accepted that are within +/- 3% of the correct answer, or are correct to within two significant figures. You should not round results that are to be used in subsequent calculations. Any final numeric answer should be entered with at least two significant figures.

Take the following two calculations for example:

Case A

$$\frac{22.75\cos(19) - 8.5}{17}$$

$$\frac{22.75 * 0.9455 - 8.5}{17}$$

$$\frac{21.51 - 8.5}{17}$$

$$\frac{13}{17}$$

$$=0.76$$

Case B

$$\frac{22.75\cos(19) - 8.5}{17}$$

$$\frac{22.75 * 0.9455 - 8.5}{17}$$

Incorrect handling of significant figures when multiplying

$$\frac{21 - 8.5}{17}$$

$$\frac{12.5}{17}$$

$$=0.74$$

For this particular problem, the correct answer is 0.7653. This means that in Case A, the answer is correct to within 2 significant figures and is only -0.69% different than the correct answer – well within the accepted tolerance. In Case B, 0.74 is not correct to within 2 significant figures, and falls at -3.31% different than the correct answer.

This error occurred by mishandling significant figures in one step of the equation. To avoid mistakes such as this, we recommend using the entry palette as a calculator, or avoid rounding when calculating outside of the sytem.