Now we use 4-digit rounding arithmetic

$$x_{1,2} = \frac{92.25 \pm \sqrt{8508}}{2} = \frac{92.25 \pm 92.24}{2}$$

$x_1 = 0.005$ $\qquad$ $x_2 = 92.25$

	Exact value	4-digit value	Absolute error	Relative error
x_1	0.0054203727	0.005		
	$0.54203727 * 10^{-2}$	$0.5 . 10^{-2}$	$0.4203727 . 10^{-3}$	0.07755 $= 0.7755 . 10^{-1}$ ← exact to 5 sig
x_2	92.24457963	92.25		
	$0.9224457963 * 10^{2}$	$0.9225 . 10^{2}$	$0.542 * 10^{-2}$	$0.5876 * 10^{-4}$

To avoid the large relative error in x_2, we can compute x_2 and then use Vieta's formula to find x_1. Namely,

$$x_1 x_2 = \frac{1}{2} \Rightarrow x_1 = \frac{1}{2 x_2} = 0.00542$$

x_1	—11—	0.00542		
		$0.542 * 10^{-2}$	$0.3727 * 10^{-6}$	$0.68759 * 10^{-4}$ ← exact to 4 significant digits