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3-15 a. $6.2 \pm 0.2 - 4.1 \pm 0.1 = 2.1 \pm 0.22$

$$e = \sqrt{e_1^2 + e_2^2} = \sqrt{0.2^2 + 0.1^2} = \sqrt{0.05} = 0.22$$

b. $9.43 \pm 0.05 \times 0.016 \pm 0.001 = 0.15 \pm 0.009$

$$\%e = \sqrt{\%e_1^2 + \%e_2^2}$$

	e	$\%e$	$\%e^2$
e_1	0.05	0.530	0.281
e_2	0.001	6.25	39.06
e_3	0.009	6.27	39.34

c. $\dfrac{(6.2 \pm 0.2 - 4.1 \pm 0.1)}{9.43 \pm 0.05} = \dfrac{2.1 \pm 0.22}{9.43 \pm 0.05} = 0.223 \pm 0.023$

	e	$\%e$	$\%e^2$
e_1	0.22	10.47	109.75
e_2	0.05	0.53	0.281
e_3	0.023	10.49	110.031

d $9.43 \pm 0.05 \times (6.2 \pm 0.2 \times 10^{-3} + 4.1 \pm 0.1 \times 10^{-3})$

4×10^{-8} 1×10^{-8}

$9.43 \pm 0.05 \times 0.0103 \pm 2 \times 10^{-4} = 0.0971 \pm 0.002$

	e	$\%e$	$\%e^2$
e_1	0.05	0.53	0.281
e_2	2×10^{-4}	2.17	4.71
e_3	2.2×10^{-3}	2.23	4.99