

Solutions to Problems

1.

(a)	777	3 significant figures
(b)	81.60	4 significant figures
(c)	7.03	3 significant figures
(d)	0.03	1 significant figure
(e)	0.0086	2 significant figures
(f)	6465	4 significant figures
(g)	8700	2 significant figures
2.

(a)	$5.859 = 5.859 \times 10^0$
(b)	$21.8 = 2.18 \times 10^1$
(c)	$0.0068 = 6.8 \times 10^{-3}$
(d)	$328.65 = 3.2865 \times 10^2$
(e)	$0.219 = 2.19 \times 10^{-1}$
(f)	$444 = 4.44 \times 10^2$
3.

(a)	$8.69 \times 10^5 = 869,000$
(b)	$9.1 \times 10^3 = 9100$
(c)	$2.5 \times 10^{-1} = 0.25$
(d)	$4.76 \times 10^2 = 476$
(e)	$3.62 \times 10^{-5} = 0.0000362$
4. $\% \text{ uncertainty} = \frac{0.35 \text{ m}}{3.25 \text{ m}} \times 100\% = 11\%$
5.

(a)	$\% \text{ uncertainty} = \frac{0.2 \text{ s}}{4.5 \text{ s}} \times 100\% = 4.444\% \approx 4\%$
(b)	$\% \text{ uncertainty} = \frac{0.2 \text{ s}}{45 \text{ s}} \times 100\% = 0.4444\% \approx 0.4\%$
(c)	The time of 4.5 minutes is 270 seconds. $\% \text{ uncertainty} = \frac{0.2 \text{ s}}{270 \text{ s}} \times 100\% = 0.0741\% \approx 0.07\%$

Giancoli Fifth Edition Answers

David Baud



Giancoli Fifth Edition Answers:

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