



Practice Data Answer Keys

Comet Team

A	B	C	D	E	F	G	H
UTC	Diameter of Comet	Distance to Moon	Speed	Estimated Time of Impact (ETI)	ETI Conversion	Size of Crater	Distance Reached by Ejecta
	Telescope Real-Time Data*	Radar Real-Time Data	Radar Real-Time Data	Column C Divided by Column D	Column E Divided by 3,600 seconds per hour	Graph 1	Graph 2
	meters	kilometers	kilometers per second	Seconds	hours	Diameter in km	km
0100	2,000	750,600	34	22,076	6.13	39.00	330
0130	2,000	686,600	38	18,068	5.02	41.29	350
0200	1,500	457,200	45	10,160	2.82	35.00	290
0230	1,500	388,800	43	9,042	2.51	34.00	280

Moon Mapping Team

A	B	C	D	E	D	E	D	E
UTC	Zone of Probable Impact (ZOPI)		Base A		Base B		Base C	

	Radius	Area $3.14 \cdot (\text{Col. B})^2$	Area of Danger*	Probability of Base Destruction	Area of Danger*	Probability of Base Destruction	Area of Danger*	Probability of Base Destruction
	km	km ²	km ²	%	km ²	%	km ²	%
0100	450	635,850	490	0.07	48,511	7.25	157,246	23.49
0130	450	635,850	7,164	1.07	141,499	21.14	362,051	54.09
0200	425	567,163	5,545	0.93	161,283	27.01	232,106	38.88
0230	425	567,163	525	0.09	107,191	17.95	60,713	10.17

* Answers are approximate depending on ejecta distance determined by Comet Tracking Team.