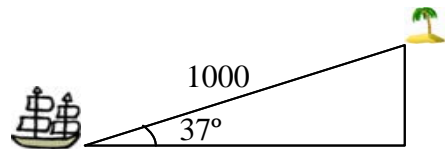


The Importance of Accurate Measurements

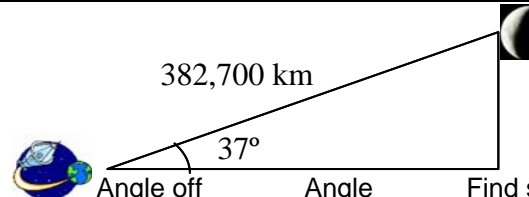


Sailing to an Island

Name: _____

Date: _____

Exact Angle	Angle off by: (degrees)	Angle mistakenly used	Find sine of Angle (use trig table or a calculator)	Mult by 1000km	Length of Side Opposite Angle	Subtract Exact Value	Final distance off by: (km)	Within 50km of the island center?
37.0	+ 5.0	= <input type="text"/>	> <input type="text"/>	* 1000.0	= <input type="text"/>	- 600.0	<input type="text"/>	<input type="text"/>
37.0	+ 2.0	= <input type="text"/>	> <input type="text"/>	* 1000.0	= <input type="text"/>	- 600.0	<input type="text"/>	<input type="text"/>
37.0	+ 0.0	= 37.0	> 0.60	* 1000.0	= 600.00	- 600.0	0.0	Yes
37.0	+ -2.0	= <input type="text"/>	> <input type="text"/>	* 1000.0	= <input type="text"/>	- 600.0	<input type="text"/>	<input type="text"/>
37.0	+ -5.0	= <input type="text"/>	> <input type="text"/>	* 1000.0	= <input type="text"/>	- 600.0	<input type="text"/>	<input type="text"/>



Rocket Ship to the Moon

Exact Angle	Angle off by: (degrees)	Angle mistakenly used	Find sine of Angle (use trig table or a calculator)	Mult by 382,700 km	Length of Side Opposite Angle	Subtract Exact Value	Final distance off by: (km)	Within 1738 km of the Moon center?
37.0	+ 1.0	= <input type="text"/>	> <input type="text"/>	* 382700.0	= <input type="text"/>	- 230314.6	<input type="text"/>	<input type="text"/>
37.0	+ 0.2	= <input type="text"/>	> <input type="text"/>	* 382700.0	= <input type="text"/>	- 230314.6	<input type="text"/>	<input type="text"/>
37.0	+ 0.0	= 37.0	> 0.6018	* 382700.0	= 230314.6	- 230314.6	0.0	Yes
37.0	+ -0.2	= <input type="text"/>	> <input type="text"/>	* 382700.0	= <input type="text"/>	- 230314.6	<input type="text"/>	<input type="text"/>
37.0	+ -1.0	= <input type="text"/>	> <input type="text"/>	* 382700.0	= <input type="text"/>	- 230314.6	<input type="text"/>	<input type="text"/>

Why must the rocket be more accurate? _____