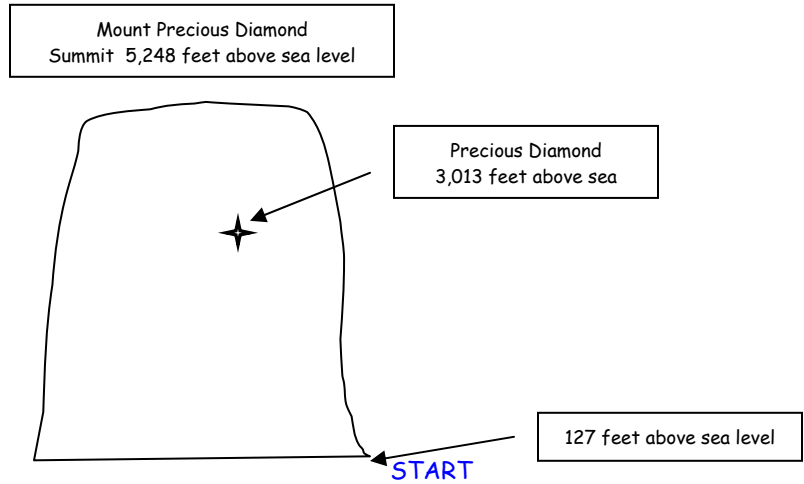


Mission Simulation – Diamonds are a Wick's Best Friend Answer Key

Dr. Wick has just acquired a Jatari 2010 (a one person jet pack) and intends to use it to power himself up to the Precious Diamond which is located on the sheer cliff of Mount Precious Diamond. Dr. Wick isn't all that great at programming the Jatari 2010 because his math skills aren't so great.

Directions:

Add together the programmed movements to figure out where Dr. Wick is at all times. You will report back to the Anti-Villainy Unit so his movements can be monitored.



Wick's Comments	Programmed Movement	Dr. Wick's Altitude
"Come here big diamond."	+ 286 feet	<i>413 feet</i>
"Oh fiddlesticks, I have a long way to go."	+ 2907 feet	<i>3320 feet</i>
"Hey, is that Precious Diamond down there?"	- 409 feet	<i>2911 feet</i>
"I almost touched the beauty on my way down."	+ 246 feet	<i>3157 feet</i>
"I am so close I can smell the diamond dust."	- 19 feet	<i>3138 feet</i>
"I can almost grab it..."	- 42 feet	<i>3096 feet</i>
"Up, up I need to go up."	- 1,546 feet	<i>1550 feet</i>
"Oh no, the stupid batteries are dying...."	CRASH!	<i>!!!</i>

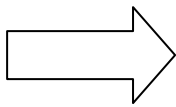
Summing it Up:

Explain, using words, numbers, symbols and/or pictures how you determined Dr. Wick's position after each programmed movement.

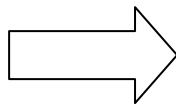
Answers will vary. Students should explain that they added positive and negative integers to find Dr. Wick's precise position.

Next Step: You have been asked to program the Anti-Villainy Unit's Jitari 2010 so that you can use it to save the diamond before Dr. Wick gets his machine fixed. Write a program with five commands that will get you to the Precious Diamond. Keep in mind that the Jitari 2010 can only go a maximum of 2,950 feet at one time and that in the five commands that it takes to get to the diamond you must go down at least once. Remember, you will start at 127 feet and need to get up to 3,013 feet.

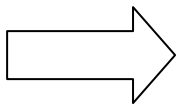
Answers will vary. The commands should get the agent to 3,013 feet.



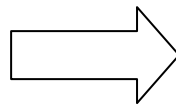
Command 1



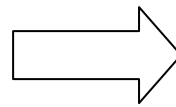
Command 2



Command 3



Command 4



Command 5