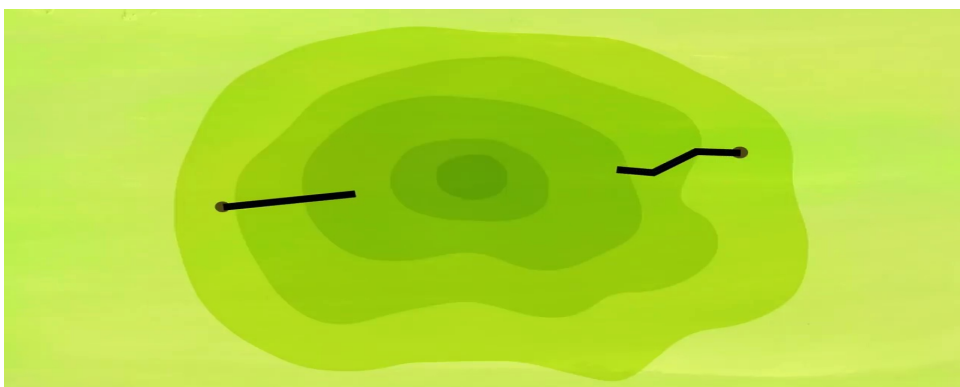
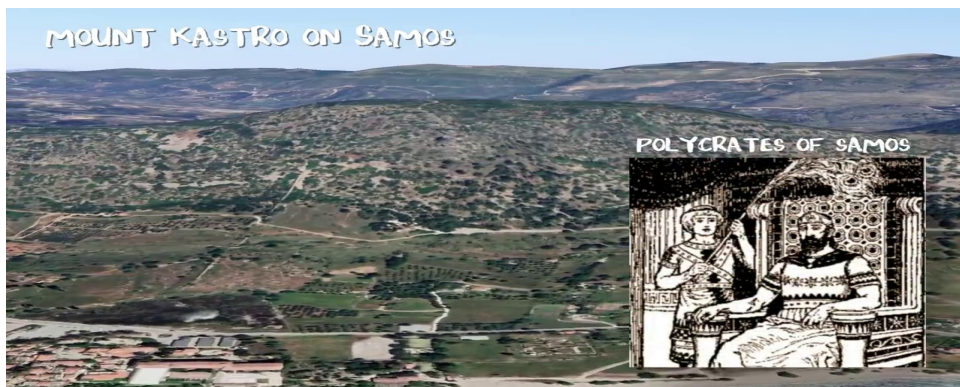
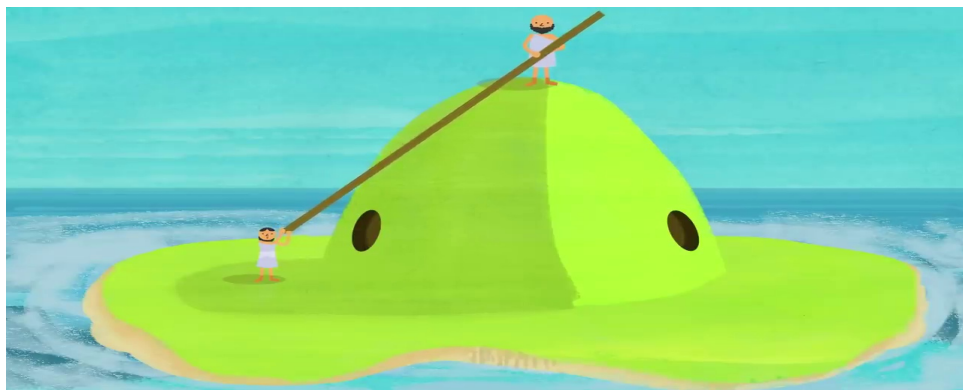
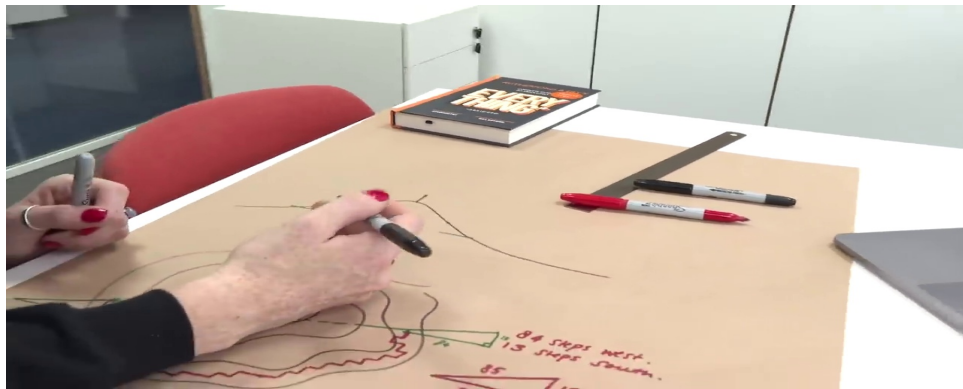




Question is, how on Earth do you dig a tunnel through a mountain when you don't have access to any modern equipment? I'll tell you how you dig a tunnel through a mountain. Now there are a couple of things that you need to dig a tunnel through a mountain. Those are the two requisite components of a tunnel. But the thing is, is that you can't just start digging in here and just hope that you'll come out here. For example, is you start digging here and you start digging here and you just hope that they line up. So you need a technique to make sure that these two lines end up meeting up in the middle and the way that you do that is by using triangles. You'd be. But the straight line hang on if you were in a straight line. It's quite wobbly mountain this one. The problem is, is that if you dig in a straight line you could end up over here. Sure, how do you make sure that you get exactly there? And it's not like you can just stand on the top of the mountain and you go heading that way lads. I feel like in the era of GPS you could just do the. I think you probably can. Start in a straight line and then just keep looking behind you to make sure that the whole still there. Side, you can't see where you're going. A step to the West. Then imagine that you have taken 84 steps West and you have taken 13 steps staff so effectively them to get the direction from one place to the other. As the sides so you know it's gonna be 84 along there and 13 along there. I deliberately chose one that was a Pythagorean triple. So now actually, when you are at the entrance to each of these tunnels, you can construct much smaller version of the same triangle and build it here.



It's like this unbelievably remarkable achievement. Where to? Do they have compasses? Obviously I'm assuming they had compass as well they. You know the same altitude. If you're like, yeah yeah, let's start there and you hadn't worked out that.



We could use a rope for that. Like taught, although it's pretty hard to keep up broke that long, taught.



Anyway, some mysteries remain unsolved, shall we say. That's the key to understanding. Check out their huge and ever growing library of material at brilliant. By the way.

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org/numberphile. Well, the way that the males dominate one another follows a rock, paper, scissors type game. These are the guys they're called ultra dominant, right? They've got big territories.

