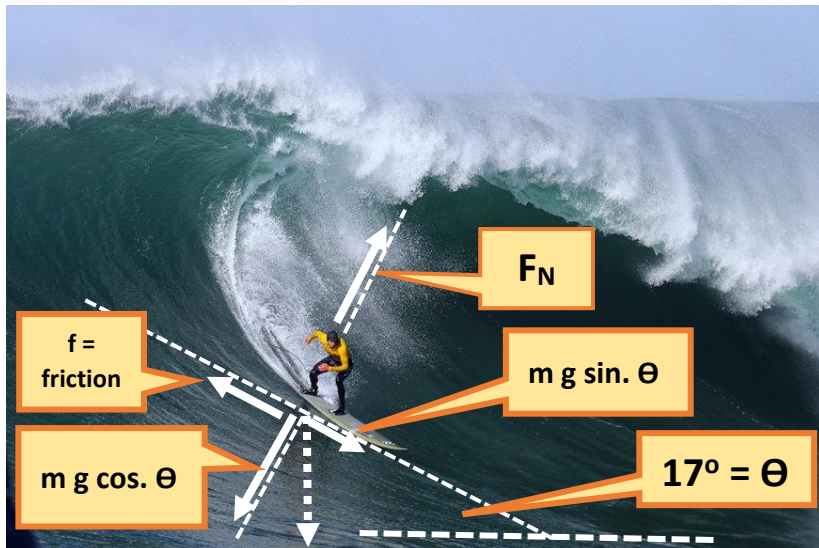


NEWTON'S 2ND LAW

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Com. College, 1212 Rio Grande St., Austin Tx. 78701 jpcise@austincc.edu & New York Times, October 29, 2016, by John Clarke

For First time in 17 Years, Women Will Compete in Top Big-Wave Surfing Contest



Greg Long riding a wave in a heat of the 2013 Titans of Mavericks in Half Moon Bay, Cali

INTRODUCTION: Purpose of this application is to find coefficient of friction μ between surfboard and water surface. Surfing down a wave happens at constant speed. Thus, acceleration is zero down a wave and $F_{NET} = 0$. In the Y direction ON surfer are two forces: F_N & $m g \cos. \Theta$ with zero acceleration.

QUESTIONS: (a) Set up the working equation in the X direction where $F_{NET} = 0$?, (b) Set up the working equation in the Y direction where $F_{NET} = 0$?, (c) Find coefficient of friction μ ?

HINTS: friction $f = \mu F_N$, $\sin.\Theta / \cos.\Theta = \tan.\Theta$, equals divided by equals are still equal.

ANSWERS: (a) _____, (b) _____, (c) $\mu = 0.31$

For the first time in the competition's 17-year history, **women will be allowed to compete at Mavericks, the nation's premier big-wave surfing contest, held off the northern coast of California.** "This is the pinnacle of the sport," said Bianca Valenti, a San Francisco area surfer who expects to compete. "And this is progress. I'd like to see them grow the number of ladies in the event. But this is a good start." The one-day event, officially known as [Titans of Mavericks](#), takes place south of San Francisco, half a mile off the rocky shores of Half Moon Bay, one of the world's most dangerous surf breaks. The surfer Mark Foo died at the location in 1994, as did Sion Milosky in 2011. In the Titans, two dozen surfers attempt to ride **massive swells that sometimes reach 60 feet.** "Mavericks is really dark and ominous," Valenti said. "It's raw and rugged. It's majestic. Organizers of Titans of Mavericks, owned and operated by Cartel Management, announced last week that the 2016-17 contest would feature a one-hour heat of **six female surfers, who will compete for a \$30,000 purse.**

"That women would be among those growing numbers shouldn't come as a surprise," he said. "That it's taken this long for them to be given a space to demonstrate their ability should." **Female surfers have proved formidable.**