



# $\pi$ IN THE SKY<sup>6</sup>

Can you spot the math needed to measure this shrinking storm on Jupiter?  
It's not rocket science when you've got pi to guide you.

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[jpl.nasa.gov/edu/nasapidaychallenge](http://jpl.nasa.gov/edu/nasapidaychallenge)

## STORM SPOTTER

Jupiter's well known Great Red Spot is shrinking and someday may disappear entirely. Continuously observed since the 1830s, this massive storm was once more than three times the diameter of Earth.

When the twin Voyager spacecraft flew by Jupiter in 1979, they sent back images of the Great Red Spot. At that time, the storm measured 24,700 km wide by 13,300 km tall. When scientists measured the storm again in 2018, using images from the Hubble Space Telescope, their estimates were 16,500 km wide by 11,400 km tall.

Given these measurements, how does the current width of the Great Red Spot compare to the diameter of Earth?

By what percent did the area of the Great Red Spot shrink from 1979 to 2018? The formula for the area of an ellipse is  $\pi ab$ .

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1979

2018