5S, 5W, 5N

If you start from the North Pole, you can travel exactly five miles due south, then five miles due west, then five miles due north and wind up exactly where you started. Can you name another place on the surface of the Earth where that is also true?

Solution to 5S, 5W, 5N

Not far from the South Pole is a circle of latitude exactly 5 miles in circumference. The center of the circle is the South Pole and its radius is 2.5/Π (approximately 0.796) miles. If you start at a point exactly 5 miles north of this circle (i.e., approx. 5.796 miles from the South Pole), you can travel 5 miles due south to the circle, 5 miles due west once around the circle, then 5 miles due north back to the starting point.

There are also circles of latitude that are 5/N miles in circumference, where N is a positive integer, and you can start 5 miles north of any of those circles.

By the way, the statement of the brain teaser is an example of a "thrown frame". The path starting from the North Pole is a triangle, so many people try to solve the teaser by fitting a triangle somewhere else on the surface of the Earth. But the solution is not triangular.