An ant is standing in the middle of a spinning disc. (Think merry-go-round or carousel.) The ant knows home is directly east from him and will only walk east. The disc spins at 1 revolution per minute and is 1 meter in radius. Describe the ant’s path if he walks at 1 meter per minute. Does he make it to the edge of the disc (and hence home for Thanksgiving)?

For an additional challenge, what speeds allow the ant to reach the edge of the disc?

The Problem of the Week is open to all undergraduate students, regardless of major. Submit your written solution, along with your name and e-mail address, to the Math Department office (Founders Hall Room 2006) by 2:00 p.m. on Friday, December 2, 2016. There is a prize of your choice of a $10 gift certificate to either Komal or Barista’s for the best solution.

http://www.unk.edu/academics/math/problem-of-the-fortnight.php

Disclaimer: Trivial solutions, although valid, run the risk of not being the best solution.