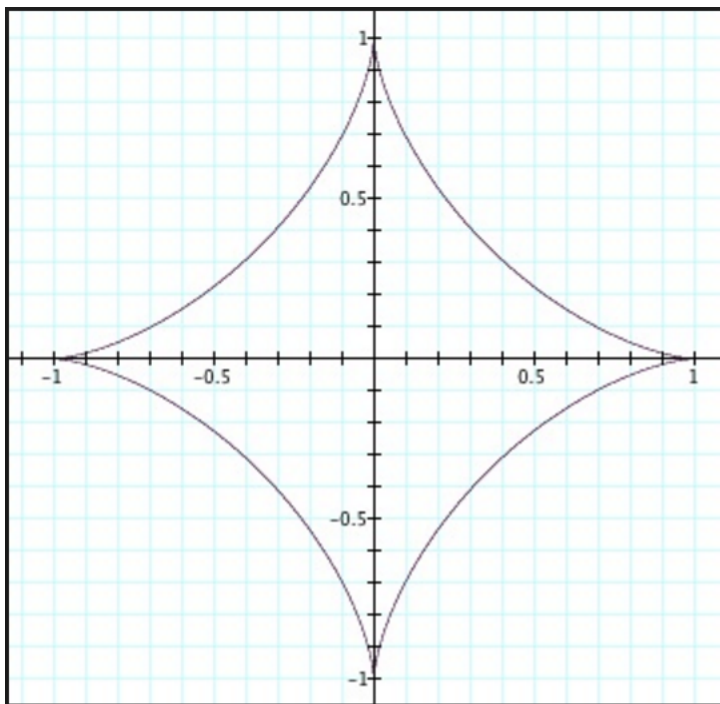


Name: _____

1. Class notes for this week: This week we have covered Sections 2.5, 2.6, and 2.7. Next week we will cover Section 2.8, which will take two lectures, and do a bit of exam review.
2. A reminder that all exam information is at math.msu.edu/Classes/mth_132 under the “Uniform Exams” tab. Go to “Content” to find the formula sheet and previous exams, and to “Exam 1 Locations and Info” for exam logistics.
3. (a) (1 point) Suppose a particle moves along a line with position $s(t) = t^4 - 2t^3 + t^2$. Find the velocity and acceleration. At what points are velocity and acceleration zero?
(b) (2 points) Draw the position, velocity, and acceleration graphs corresponding to the particle’s motion.

4. The curve $x^{\frac{2}{3}} + y^{\frac{2}{3}} = 1$ is called an astroid. There is a picture below.



Find the tangent line to this curve at $\left(-\frac{3\sqrt{3}}{8}, \frac{1}{8}\right)$.