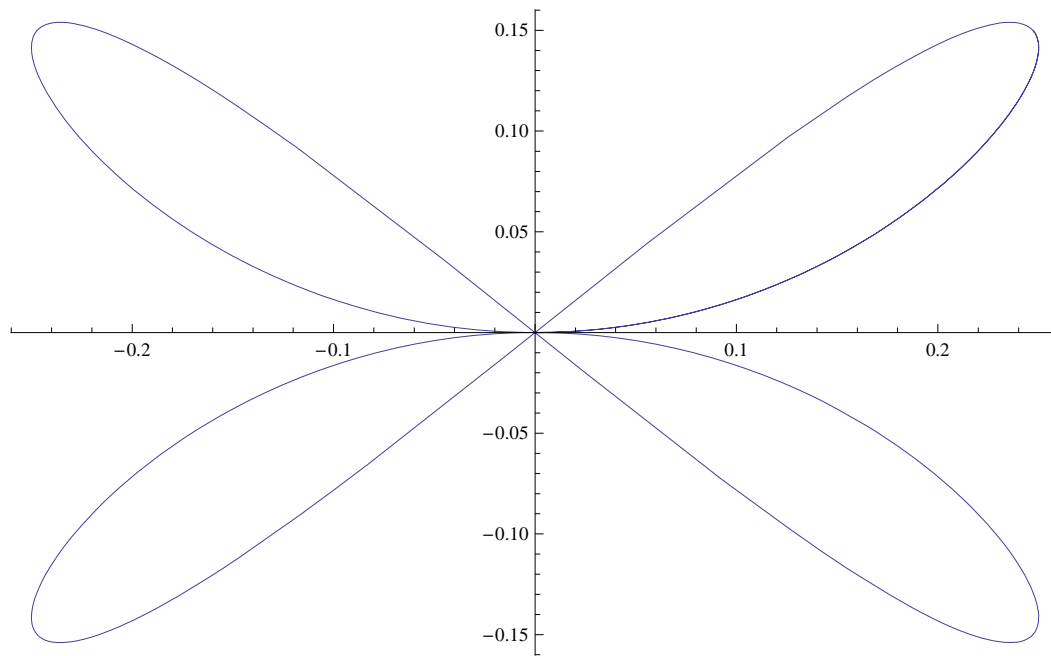


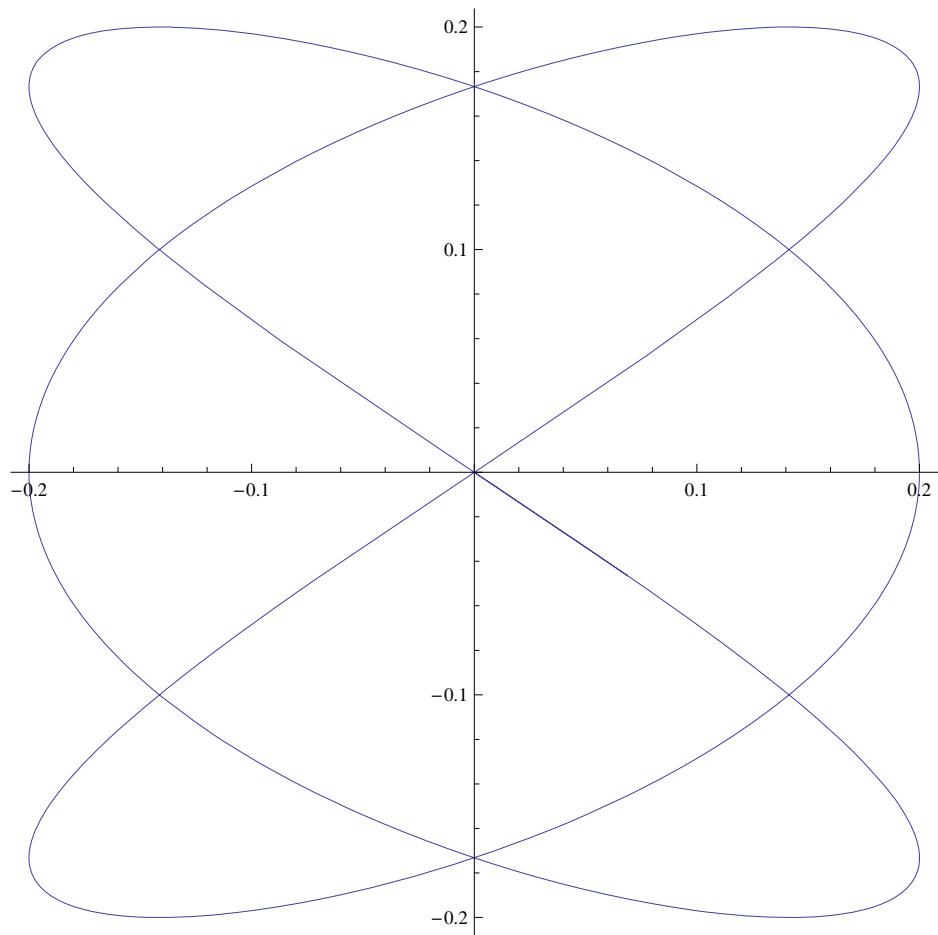
$$\mathbf{1) \left\{ 0.5 \cos\left(\frac{t}{10}\right) \sin\left(\frac{t}{10}\right), 0.2 \sin\left(\frac{t}{10}\right) \sin\left(\frac{t}{5}\right) \right\}}$$

At  $t_0 : \{0, 0\}$ ;  $t_f \approx 63$  seconds



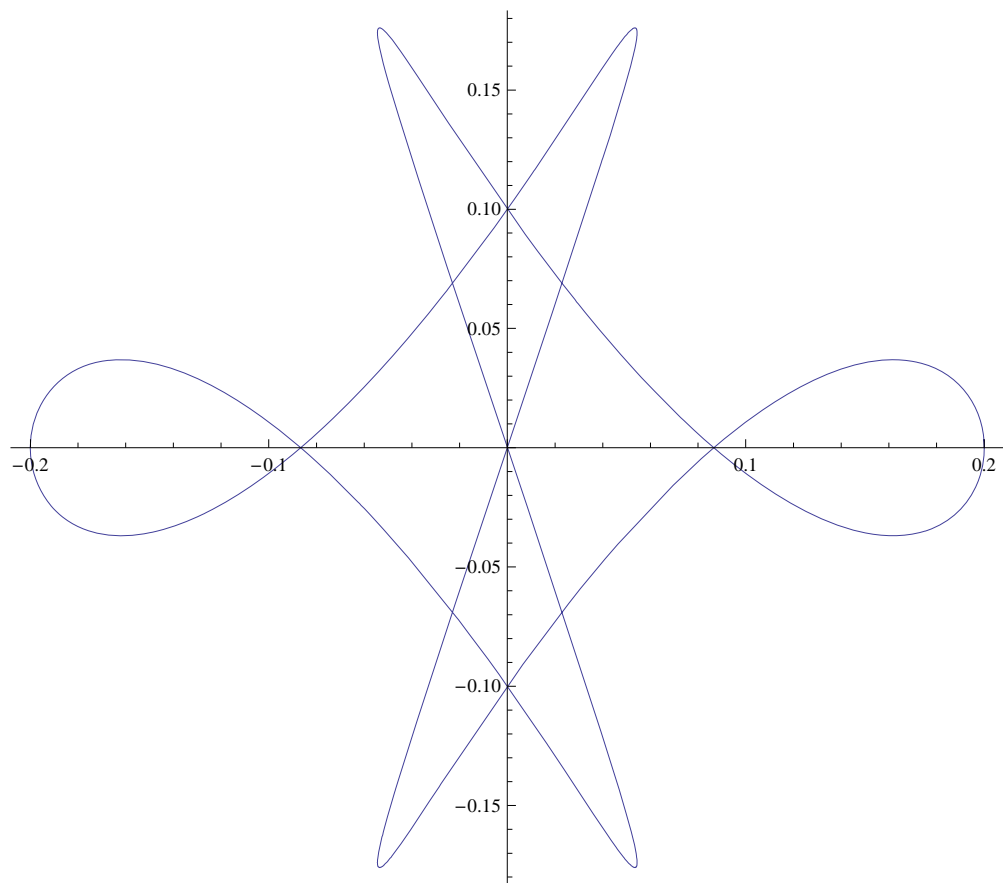
$$2) \left\{ 0.2 \sin\left(\frac{3t}{5}\right), 0.2 \cos\left(2\left(\frac{t}{5} + \frac{\pi}{4}\right)\right) \right\}$$

At  $t_0 : \{0, 0\}$ ;  $t_f \approx 31.4$  seconds



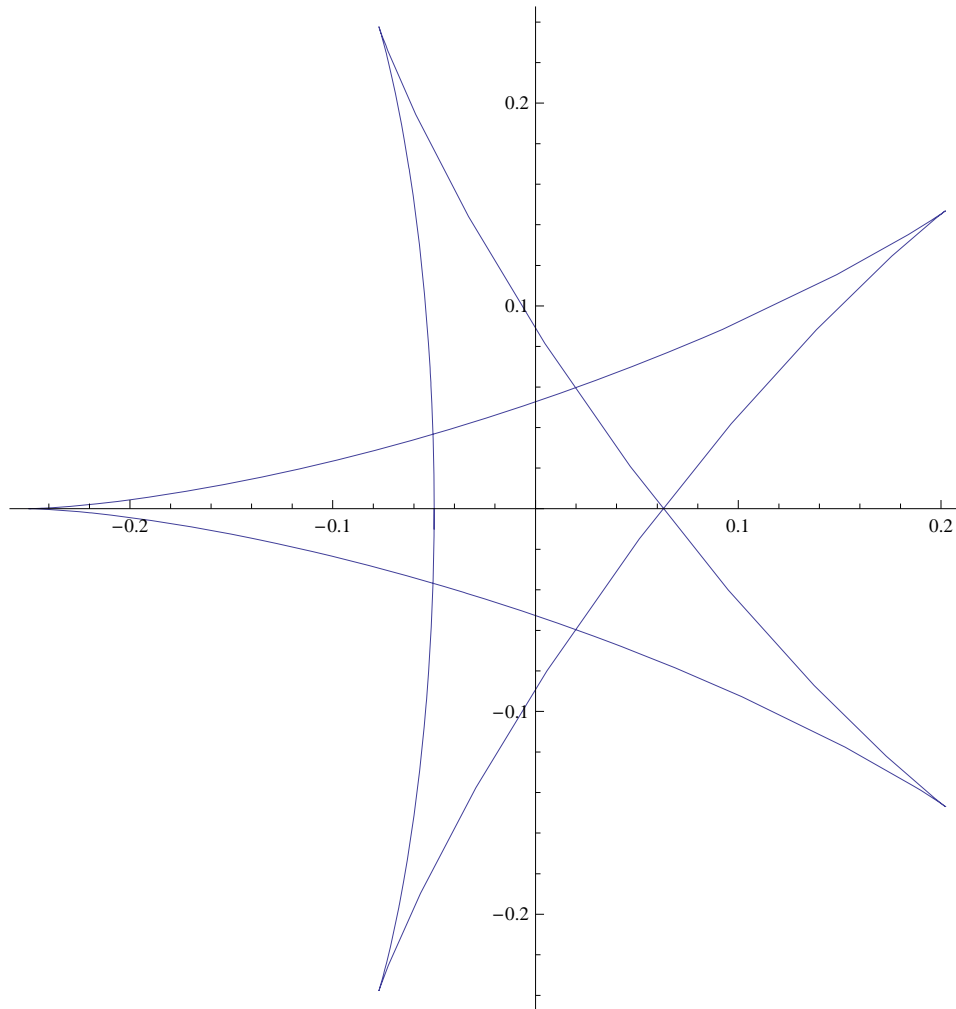
$$3) \left\{ 0.2 \cos\left(\frac{t}{10}\right) \cos\left(\frac{t}{5}\right), 0.2 \cos\left(\frac{3t}{10}\right) \sin\left(\frac{t}{10}\right) \right\}$$

At  $t_0 : \{0.2, 0\}$ ;  $t_f \approx 63$  seconds



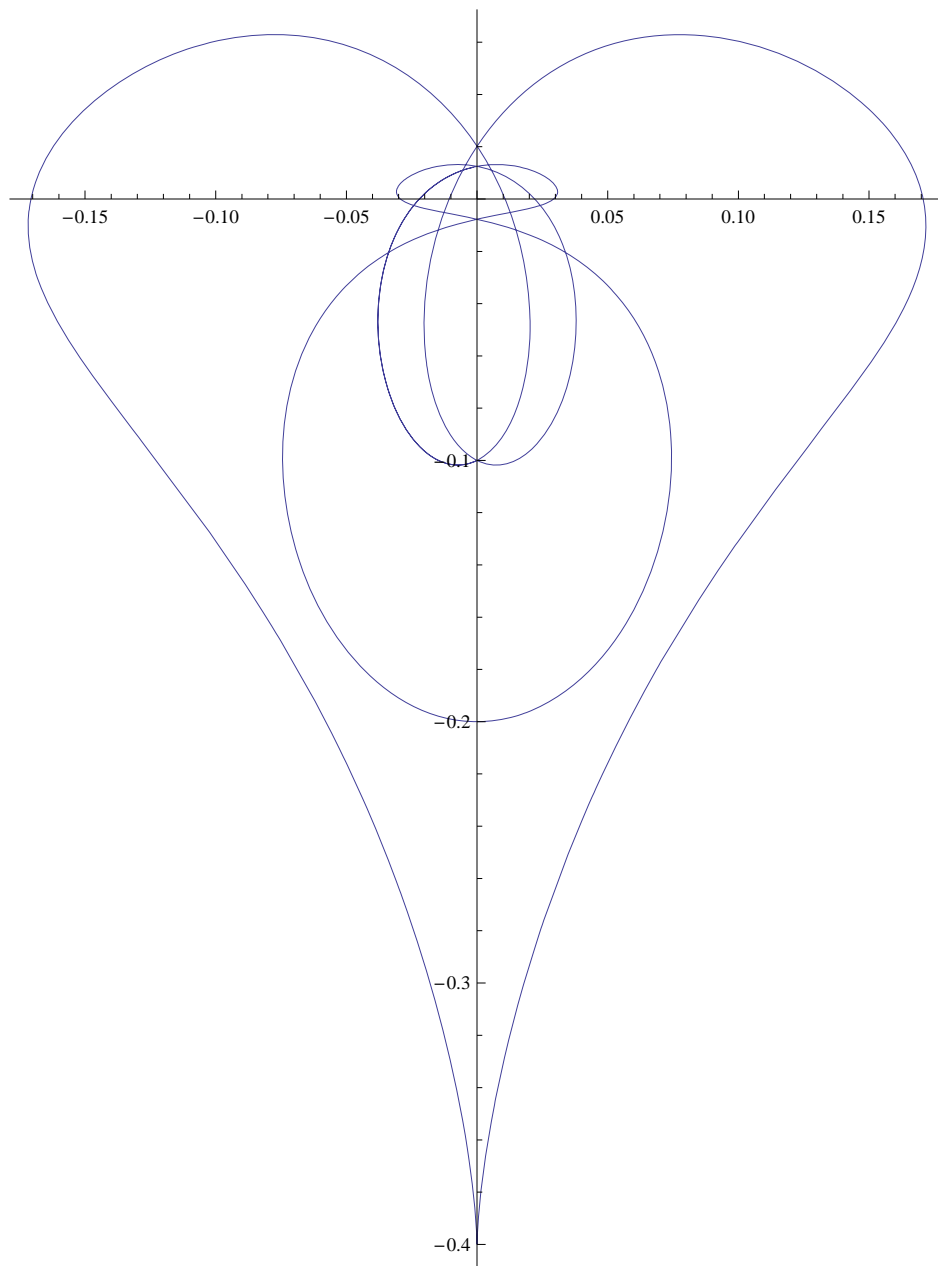
$$4) \left\{ 0.2 \left( \frac{1}{2} \cos\left(\frac{3t}{10}\right) - \frac{3}{4} \cos\left(\frac{t}{5}\right) \right), 0.2 \left( -\frac{3}{4} \sin\left(\frac{t}{5}\right) - \frac{1}{2} \sin\left(\frac{3t}{10}\right) \right) \right\}$$

At  $t_0 : \{-0.05, 0\}$ ;  $t_f \approx 63$  seconds



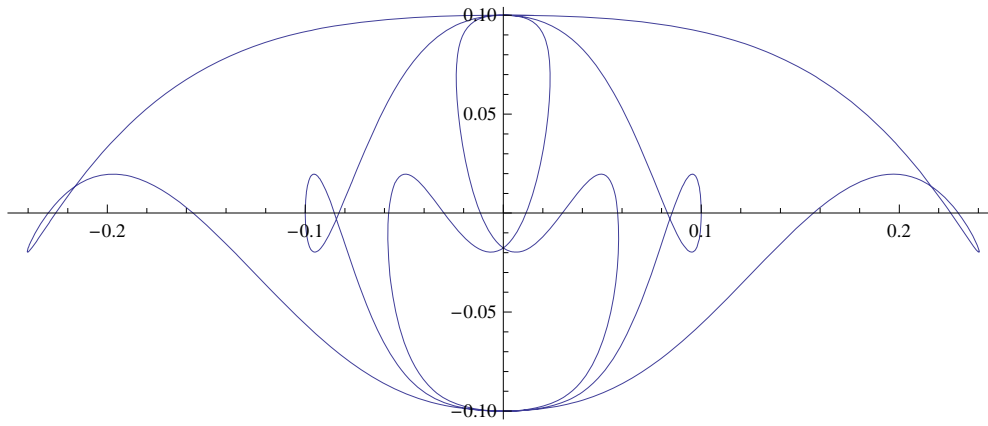
$$5) \left\{ 0.1 \left( -2 \cos^2 \left( \frac{t}{5} \right) - \sin \left( \frac{t}{10} \right) + 1 \right) \sin \left( \frac{t}{5} \right), 0.1 \cos \left( \frac{t}{5} \right) \left( -2 \cos^3 \left( \frac{t}{5} \right) - \sin \left( \frac{t}{10} \right) + 1 \right) \right\}$$

At  $t_0 : \{0, -0.1\}$ ;  $t_f \approx 63$  seconds



$$6) \left\{ 0.1 \left( 2 \cos^3 \left( \frac{t}{12} \right) + 1 \right) \sin \left( \frac{t}{4} \right), 0.1 \cos \left( \frac{t}{4} \right) \left( 1 - 2 \sin^4 \left( \frac{t}{4} \right) \right) \right\}$$

At  $t_0 : \{0, 0.1\}$ ;  $t_f \approx 75.5$  seconds



$$7) \left\{ 0.04 \left( 5 \cos\left(\frac{9t}{20}\right) - 4 \cos\left(\frac{t}{4}\right) \right), 0.04 \left( -4 \sin\left(\frac{t}{4}\right) - 5 \sin\left(\frac{9t}{20}\right) \right) \right\}$$

At  $t_0 : \{0.04, 0\}$ ;  $t_f \approx 125.5$  seconds

