

appVersion(4) = "1.0.8348.30405"

$x_1(t)$ $v_{x1}(t)$ $y_1(t)$ $v_{y1}(t)$
 $x_2(t)$ $v_{x2}(t)$ $y_2(t)$ $v_{y2}(t)$ $G := 1$ $m_1 := 30$ $m_2 := 2$ $m_3 := 0.5$ $t_{end} := 1$
 $x_3(t)$ $v_{x3}(t)$ $y_3(t)$ $v_{y3}(t)$
funvec

$x_1(0) = 0$ $x_2(0) = -3$ $x_3(0) = -3.1$ $y_1(0) = 0$ $y_2(0) = -0.2$ $y_3(0) = -0.1$
 $v_{x1}(0) = -1$ $v_{x2}(0) = 1$ $v_{x3}(0) = 2$ $v_{y1}(0) = -1$ $v_{y2}(0) = 0$ $v_{y3}(0) = 0$
 $\frac{d}{dt} x_1(t) = v_{x1}(t)$ $\frac{d}{dt} v_{x1}(t) = \frac{G \cdot m_2 \cdot (x_2(t) - x_1(t))}{\sqrt{(x_2(t) - x_1(t))^2 + (y_2(t) - y_1(t))^2}^3} + \frac{G \cdot m_3 \cdot (x_3(t) - x_1(t))}{\sqrt{(x_3(t) - x_1(t))^2 + (y_3(t) - y_1(t))^2}^3}$
 $\frac{d}{dt} y_1(t) = v_{y1}(t)$ $\frac{d}{dt} v_{y1}(t) = \frac{G \cdot m_2 \cdot (y_2(t) - y_1(t))}{\sqrt{(x_2(t) - x_1(t))^2 + (y_2(t) - y_1(t))^2}^3} + \frac{G \cdot m_3 \cdot (y_3(t) - y_1(t))}{\sqrt{(x_3(t) - x_1(t))^2 + (y_3(t) - y_1(t))^2}^3}$
 $\frac{d}{dt} x_2(t) = v_{x2}(t)$ $\frac{d}{dt} v_{x2}(t) = \frac{G \cdot m_1 \cdot (x_1(t) - x_2(t))}{\sqrt{(x_2(t) - x_1(t))^2 + (y_2(t) - y_1(t))^2}^3} + \frac{G \cdot m_3 \cdot (x_3(t) - x_2(t))}{\sqrt{(x_3(t) - x_2(t))^2 + (y_3(t) - y_2(t))^2}^3}$
 $\frac{d}{dt} y_2(t) = v_{y2}(t)$ $\frac{d}{dt} v_{y2}(t) = \frac{G \cdot m_1 \cdot (y_1(t) - y_2(t))}{\sqrt{(x_2(t) - x_1(t))^2 + (y_2(t) - y_1(t))^2}^3} + \frac{G \cdot m_3 \cdot (y_3(t) - y_2(t))}{\sqrt{(x_3(t) - x_2(t))^2 + (y_3(t) - y_2(t))^2}^3}$
 $\frac{d}{dt} x_3(t) = v_{x3}(t)$ $\frac{d}{dt} v_{x3}(t) = \frac{G \cdot m_1 \cdot (x_1(t) - x_3(t))}{\sqrt{(x_3(t) - x_1(t))^2 + (y_3(t) - y_1(t))^2}^3} + \frac{G \cdot m_2 \cdot (x_2(t) - x_3(t))}{\sqrt{(x_3(t) - x_2(t))^2 + (y_3(t) - y_2(t))^2}^3}$
 $\frac{d}{dt} y_3(t) = v_{y3}(t)$ $\frac{d}{dt} v_{y3}(t) = \frac{G \cdot m_1 \cdot (y_1(t) - y_3(t))}{\sqrt{(x_3(t) - x_1(t))^2 + (y_3(t) - y_1(t))^2}^3} + \frac{G \cdot m_2 \cdot (y_2(t) - y_3(t))}{\sqrt{(x_3(t) - x_2(t))^2 + (y_3(t) - y_2(t))^2}^3}$

$M := \text{Rkadapt}(funvec, t_{end}, 1100)$

