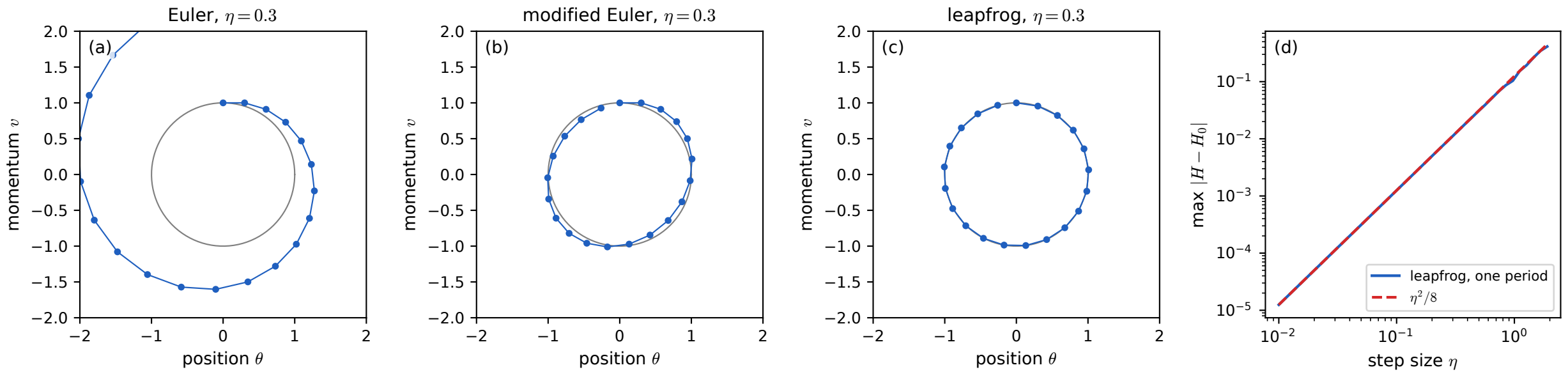

Euler, $\eta = 0.3$
modified Euler, $\eta = 0.3$
leapfrog, $\eta = 0.3$
(a)
(b)
(c)
(d)
momentum v
position θ
max $|H - H_0|$
step size η
leapfrog, one period
$\eta^2/8$