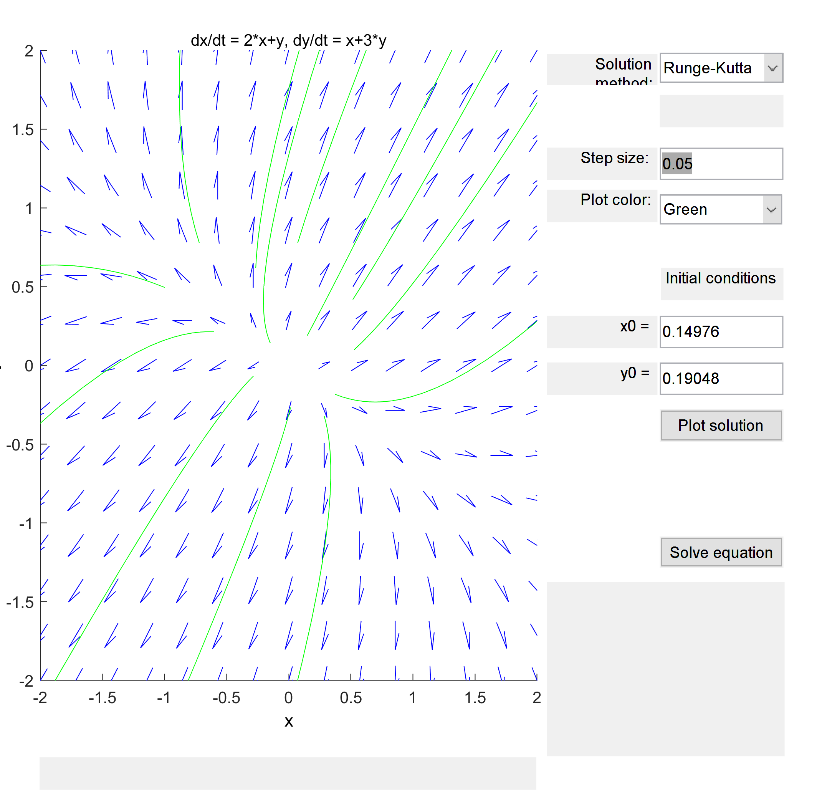
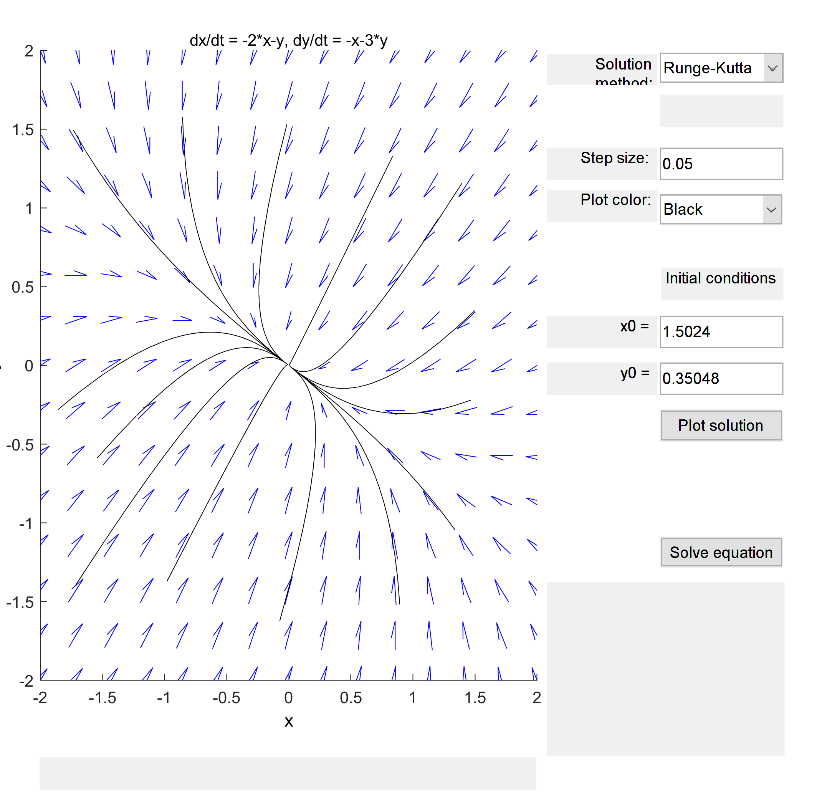
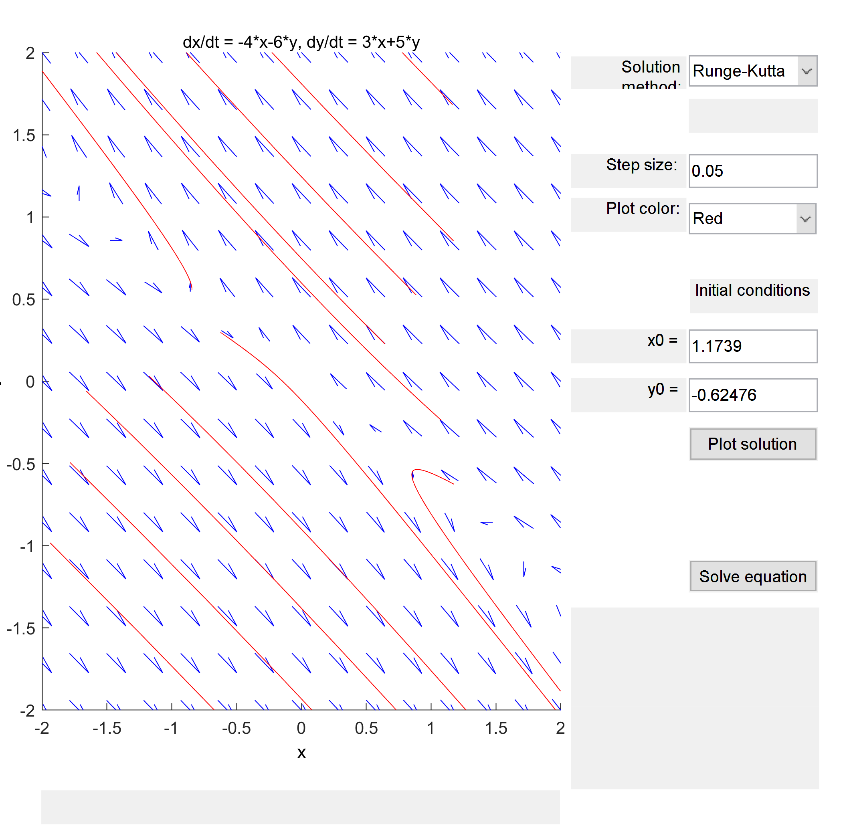
**MATLAB – LAB3 – EXERCISE 4**

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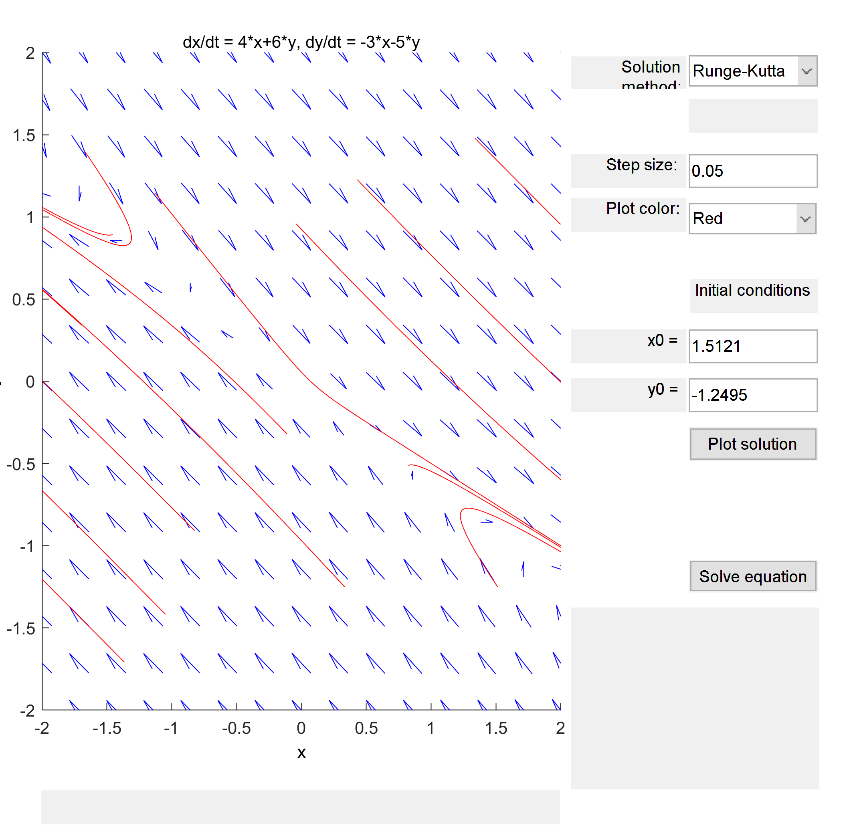
**4.1: Source Node – both eigenvalues are positive**

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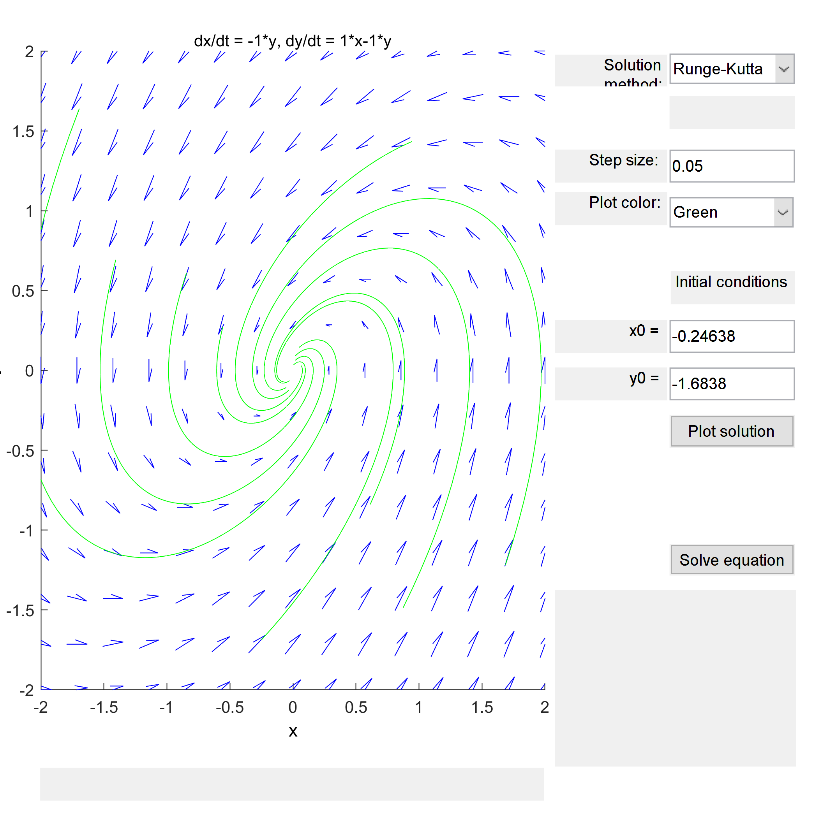
**4.2: Nodal sink – asymptotically stable – both eigenvalues are negative**

****

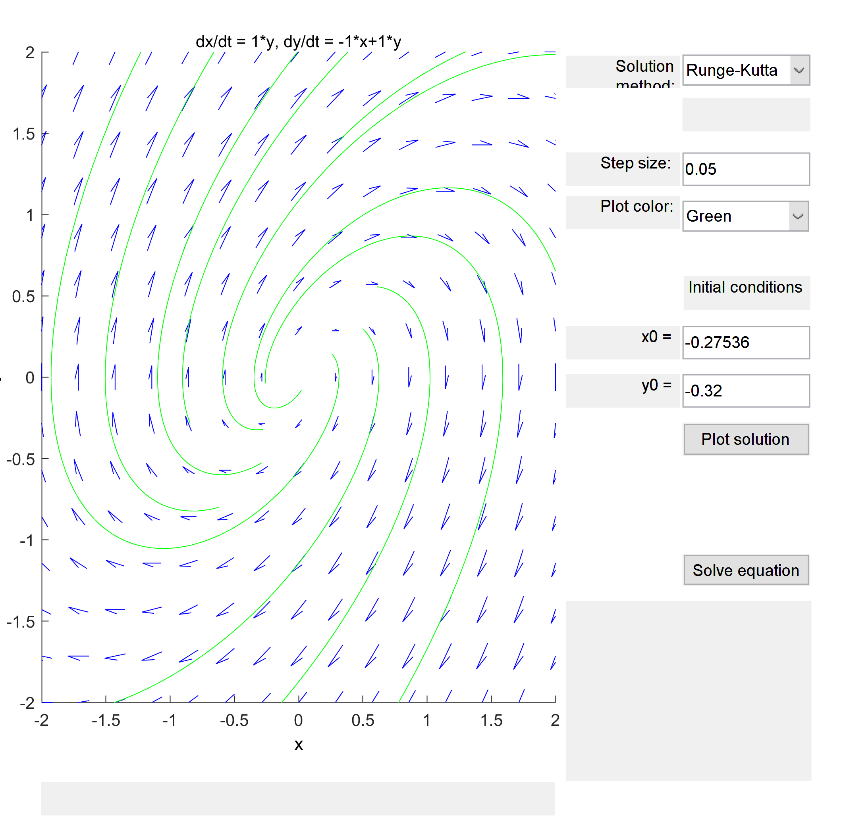
**4.3: Unstable Saddle Point – distinct eigenvalues with one positive and one negative**

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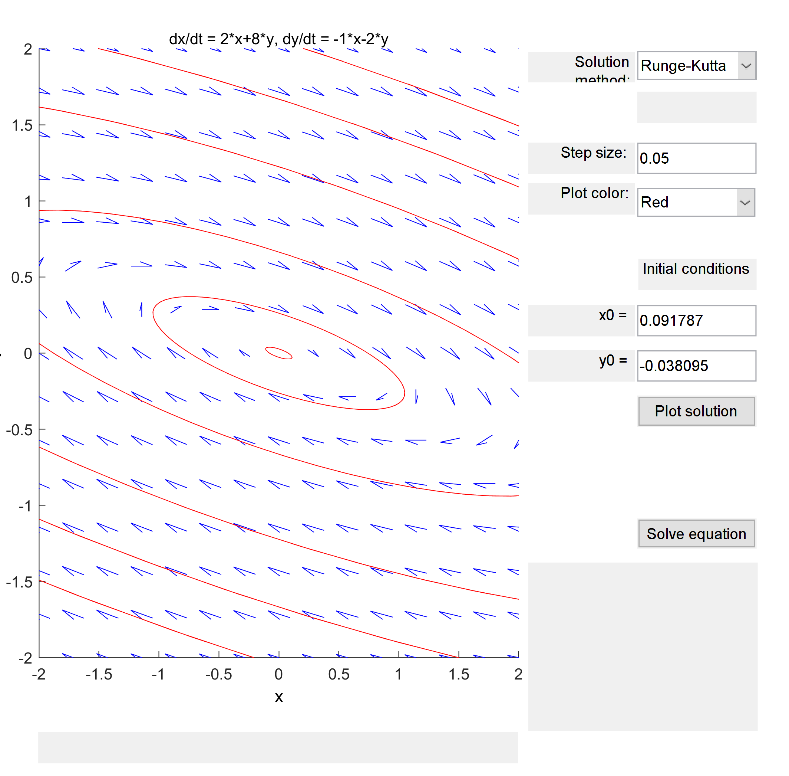
**4.4: Unstable Saddle Point – distinct eigenvalues one positive and one negative**

****

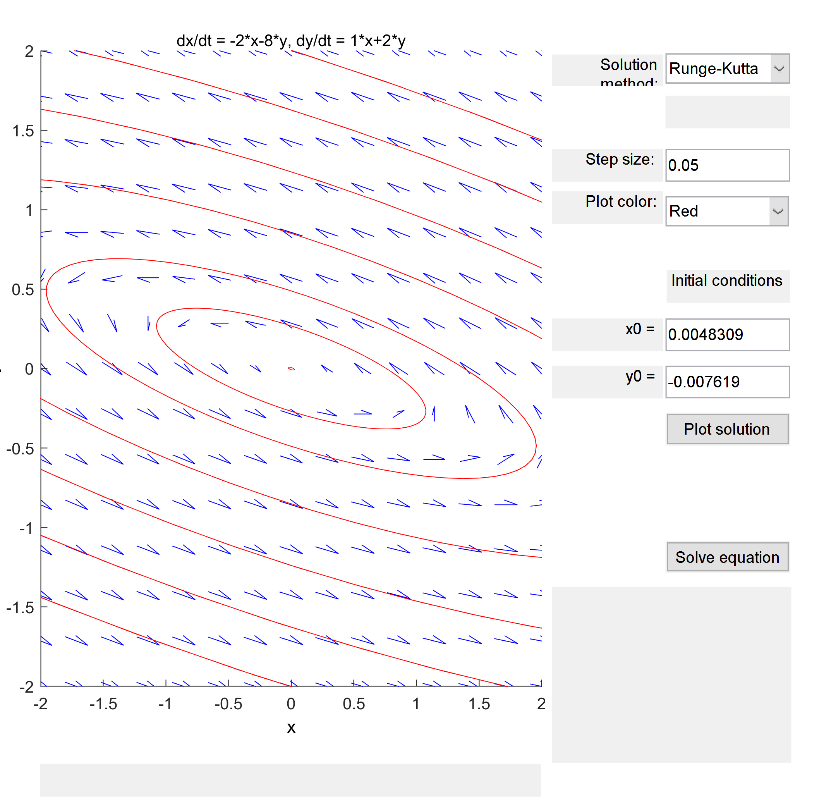
**4.5: Nodal sink – distinct complex eigenvalues spiralling inwards (real part is negative)**

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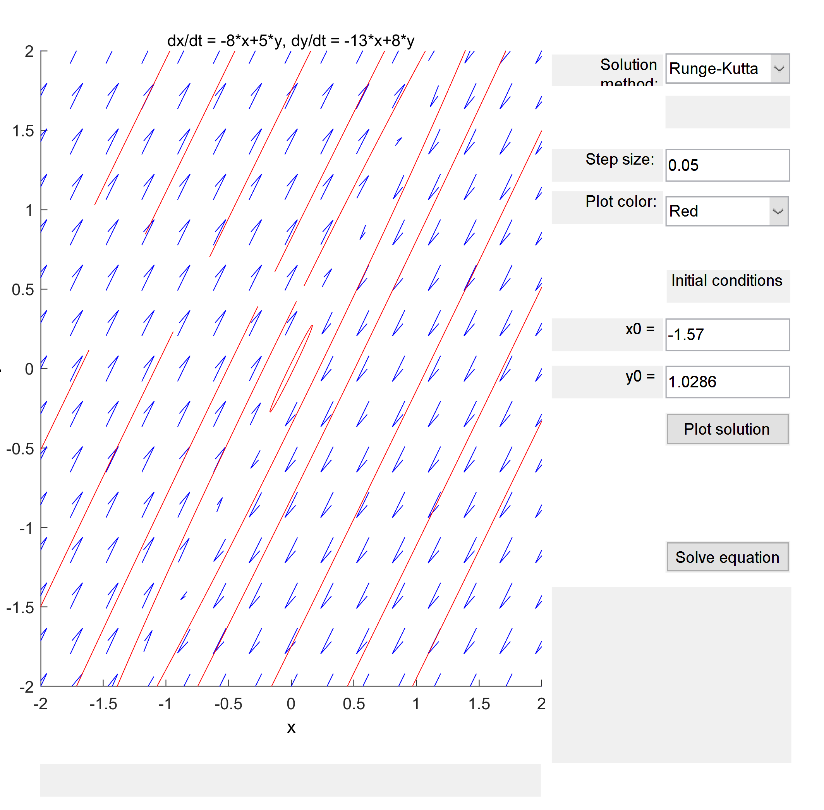
**4.6: Unstable nodal source – distinct complex eigenvalues – spirals outwards as real part is positive**

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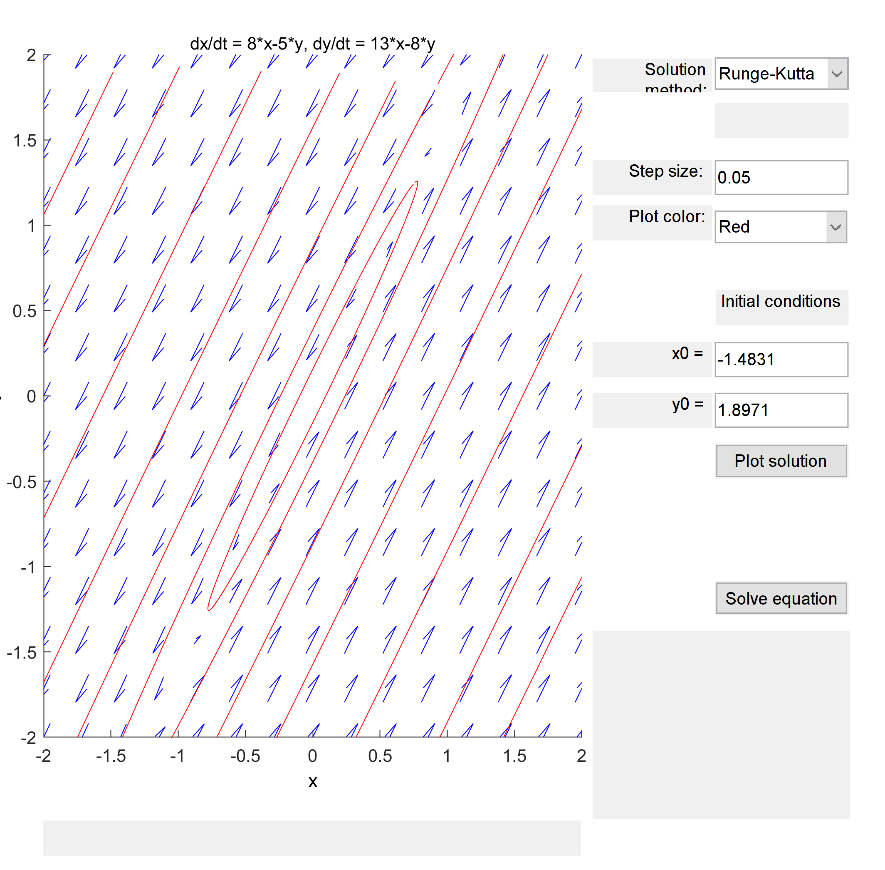
**4.7: Stable center clockwise – no real component in the eigenvalues**

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**4.8: Stable center counter-clockwise – no real component to eigenvalues**

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**4.9: v Clockwise stable center – no real component to eigenvalues**

****

**4.10: Counter-clockwise stable center – no real component to eigenvalues**