

*Topic: Creating of a numerical example of a system in the state-space
with the set special points (stationary)*

Task Create a numerical example of a system in the state-space with the set types of special points (by variants). Show geometrical interpretation, namely: arrangement of roots of characteristic equation of a system in the plane of roots; the transient process corresponding to them in a time; the phase portrait corresponding to type of a special (stationary) point in phase space.

Variants:

- 1) steady node,
- 2) unstable node,
- 3) unstable saddle,
- 4) steady focus,
- 5) unstable focus,
- 6) type center,
- 7) steady node,
- 8) unstable node,
- 9) unstable saddle,
- 10) steady focus,
- 11) unstable focus,
- 12) type center.

Note: numerical values should not repeat.