

## Elimination Followed by Anti-elimination

**Quiz:** Elimination converts the system

$$\begin{aligned}\dot{x} &= 6x + 5y \\ \dot{y} &= x + 2y\end{aligned}$$

to the ODE  $\ddot{x} - 8\dot{x} + 7x = 0$ .

What is the coefficient matrix of the system that anti-elimination converts it back to?

**Choices:**

- a.  $\begin{pmatrix} 1 & 2 \\ 6 & 5 \end{pmatrix}$
- b.  $\begin{pmatrix} 6 & 5 \\ 1 & 2 \end{pmatrix}$
- c.  $\begin{pmatrix} 0 & 1 \\ -7 & 8 \end{pmatrix}$
- d. None of these.

Pick what you think is the correct choice and then look at the answer.

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