If y is real then

$$be^{m_1x} + de^{m_2x} \equiv 0.$$

Hence $b = d = 0$. Real solutions are $y = ae^{m_1x} + ce^{m_2x}$.

(iv.b) If $m_1 = m_2$, then complex solutions are

$$y = (a + ib)e^{m_1x} + (c + id)xe^{m_1x}.$$

If y is real then

$$be^{m_1x} + dxe^{m_1x} \equiv 0.$$

Hence $b = 0 = d$. Real solutions are $y = ae^{m_1x} + cxe^{m_1x}$.

Thus $\mathbb{S}_R$ has dimension 2.

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In the pipeline for November 2019

The 2019 Presidential Address	*Mike Askew*
Alice's adventures in inverse tan land – mathematical argument, language and proof	*Paul Glaister*
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