

Advanced Higher Maths
SQA 2016 Exemplar
Question 3

Use Gaussian elimination on the system of equations below to give an expression for z in terms of λ .

$$x + y + z = 2$$

$$4x + 3y - \lambda z = 4$$

$$5x + 6y + 8z = 11$$

Determine the value(s) of λ for which this system **does not** have a solution.

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Answer:

$$\lambda = -1$$