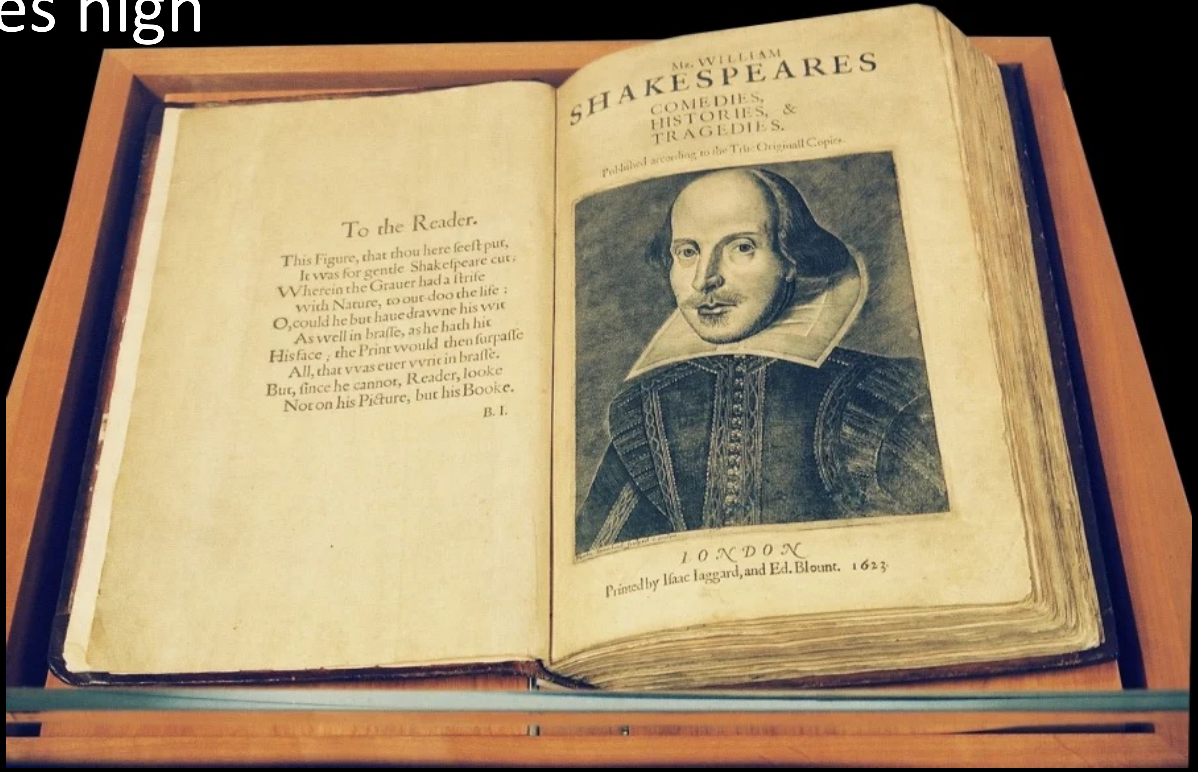
Size isn't Everything!

Colin Graham
MathsJam Gathering
19th November 2022

Aspect Ratios

- Quarto - 9½ inches wide and 12 inches high
- Folio - 12 inches wide and 19 inches high



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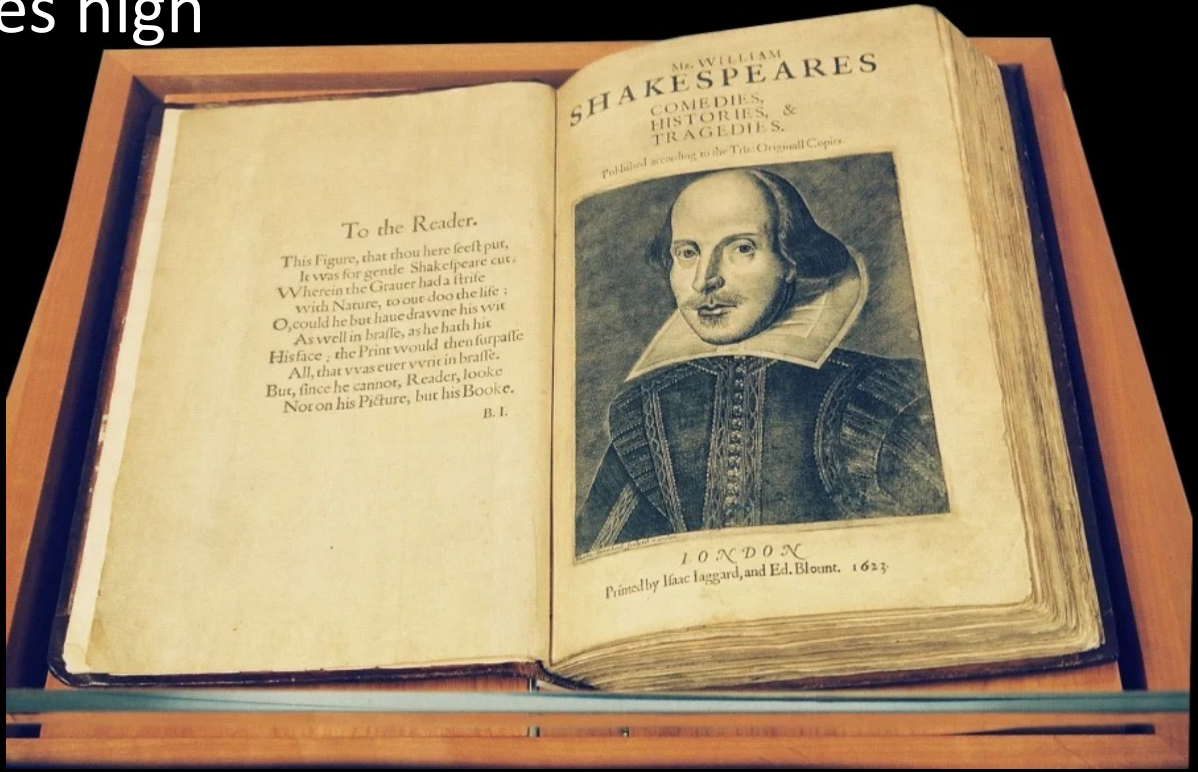
Folding in half:

- ½ Quarto becomes 9 ½ by 6
- ½ Folio becomes 12 by 9 ½



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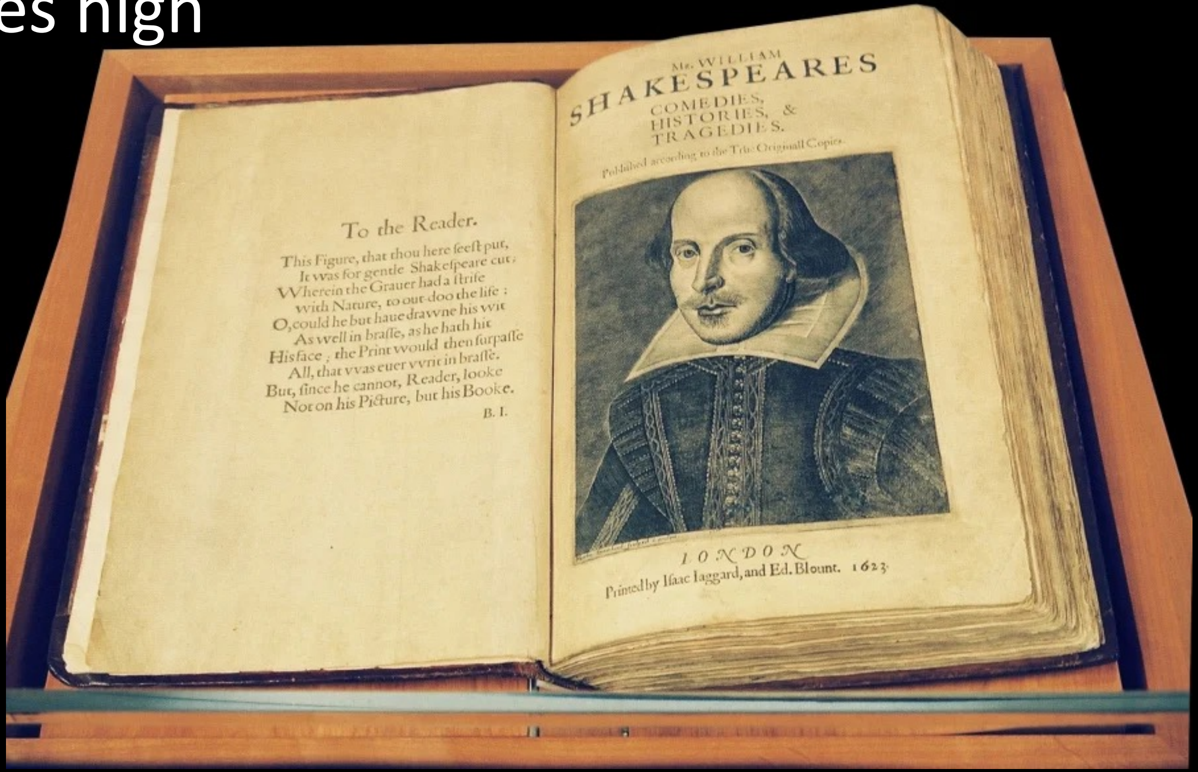

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- Quarto - 9½ inches wide and 12 inches high 19:24
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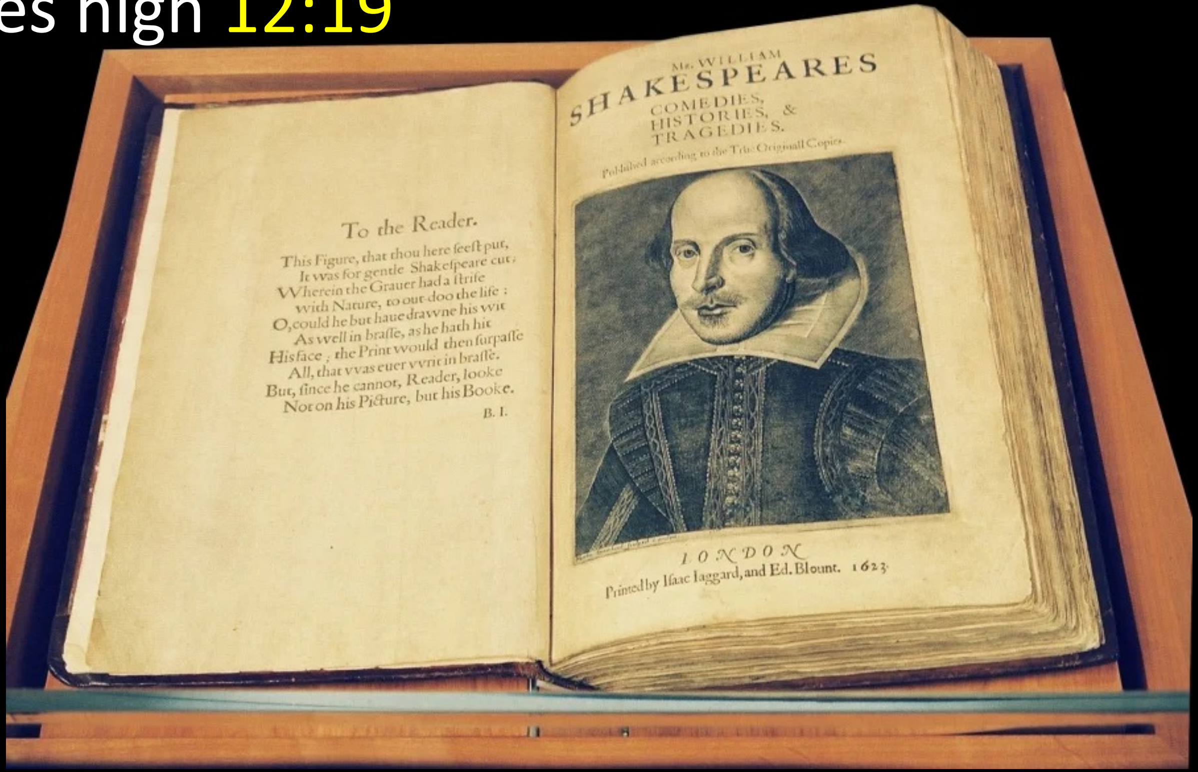
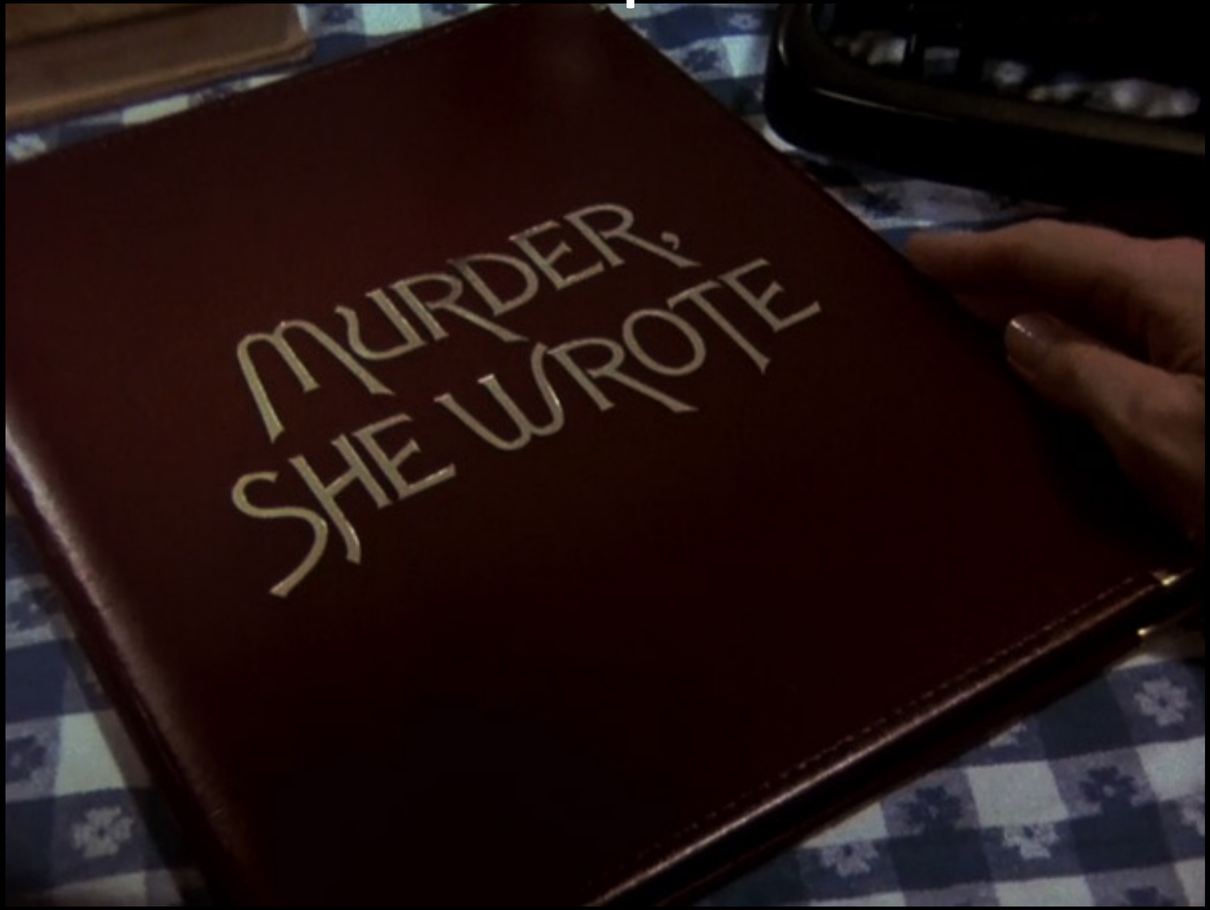


Aspect Ratios

4

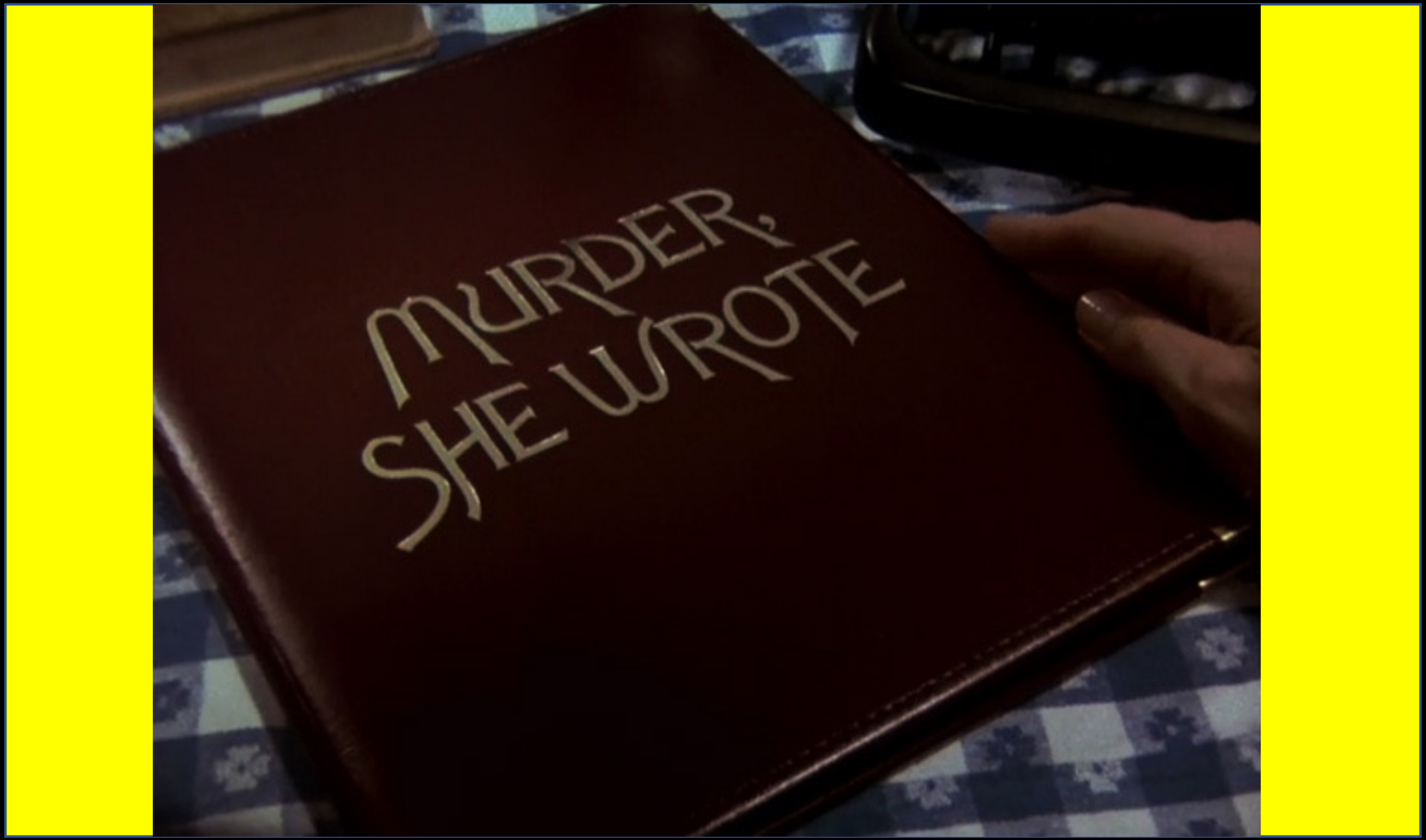
3



Aspect Ratios

Margins on 16:9

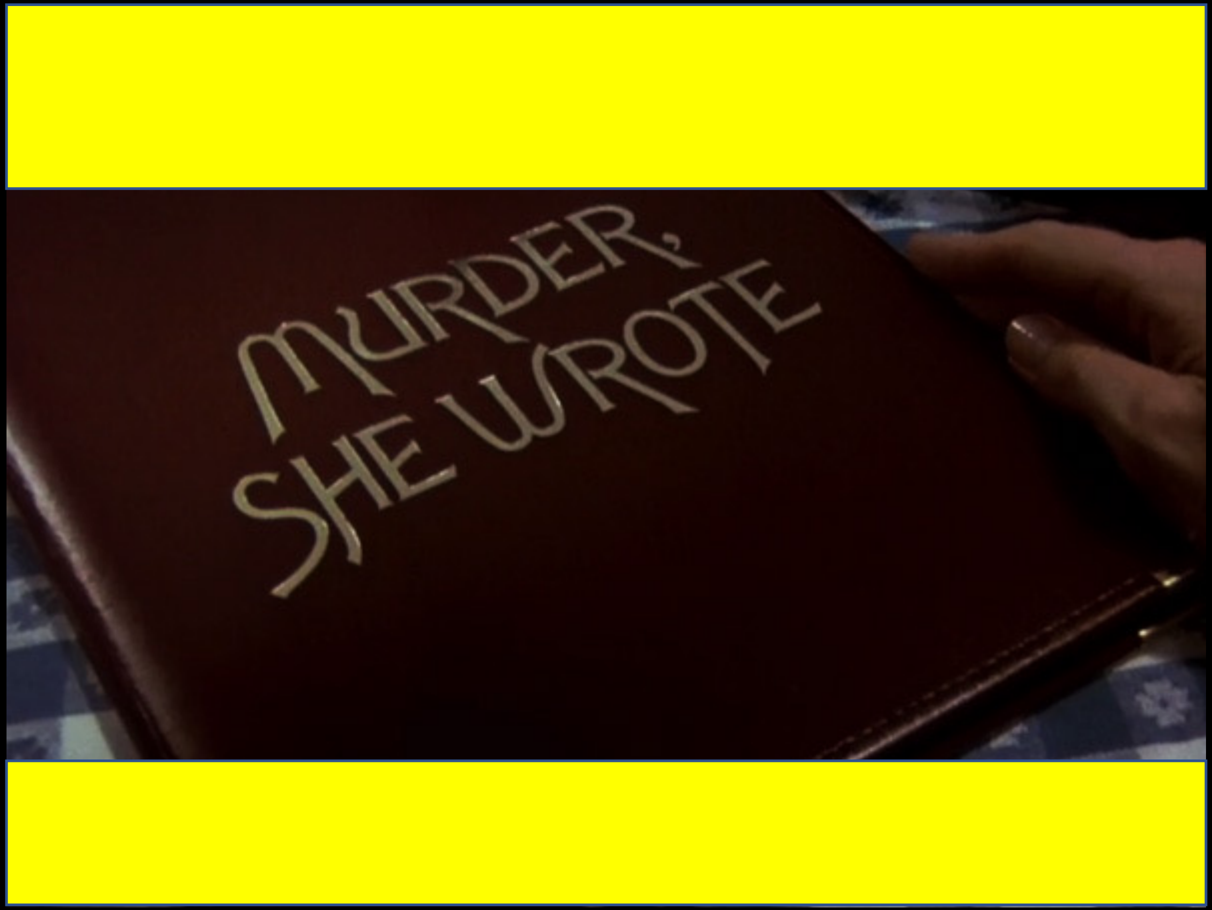
12:9



Aspect Ratios

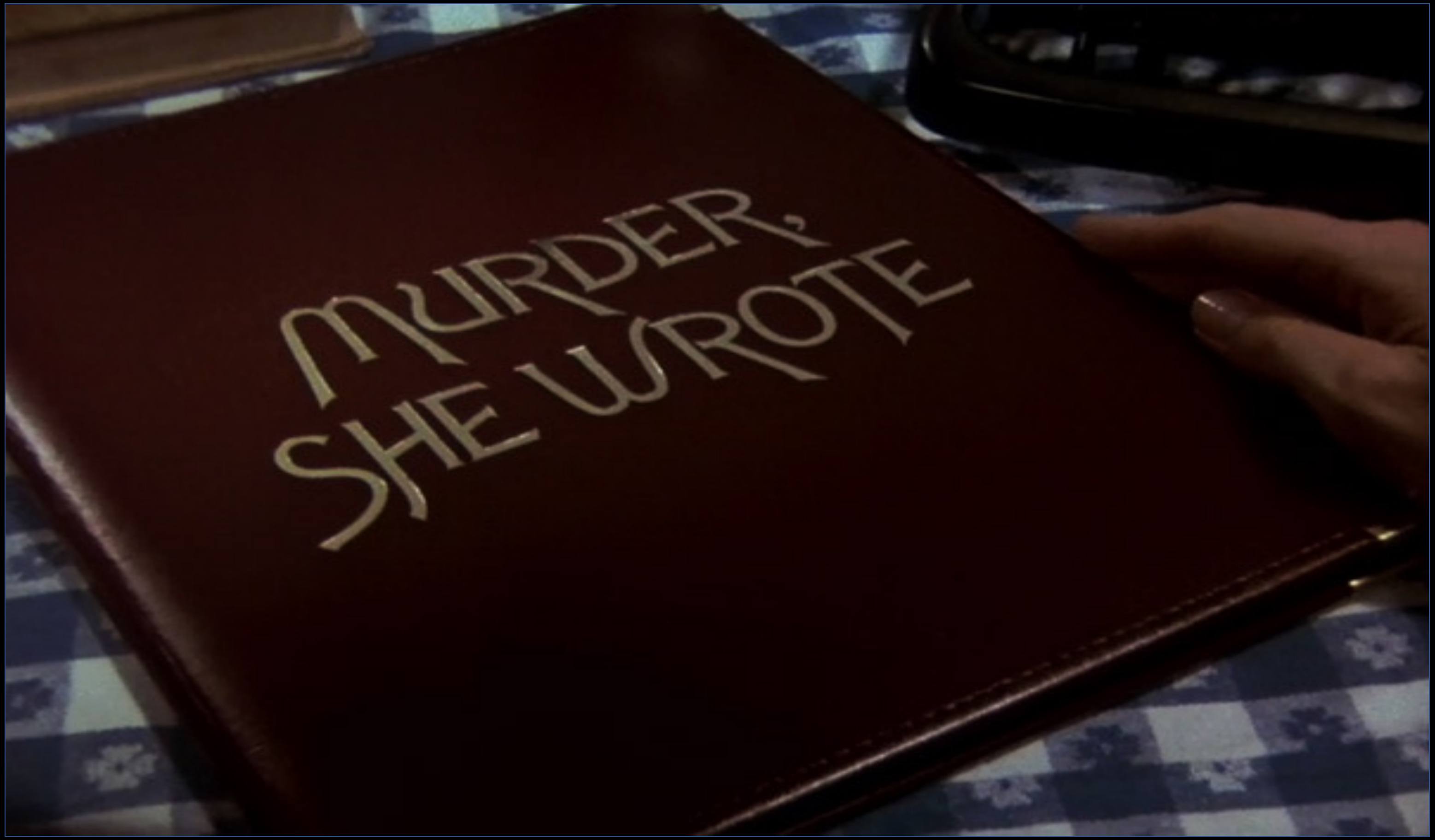
Cut-offs on 16:9

16:12



Aspect Ratios

Distortion on 16:9



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A0 is 1,189 mm × 841 mm (46.8 in × 33.1 in)

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- B0 > C0 > A0, by the same geometric mean

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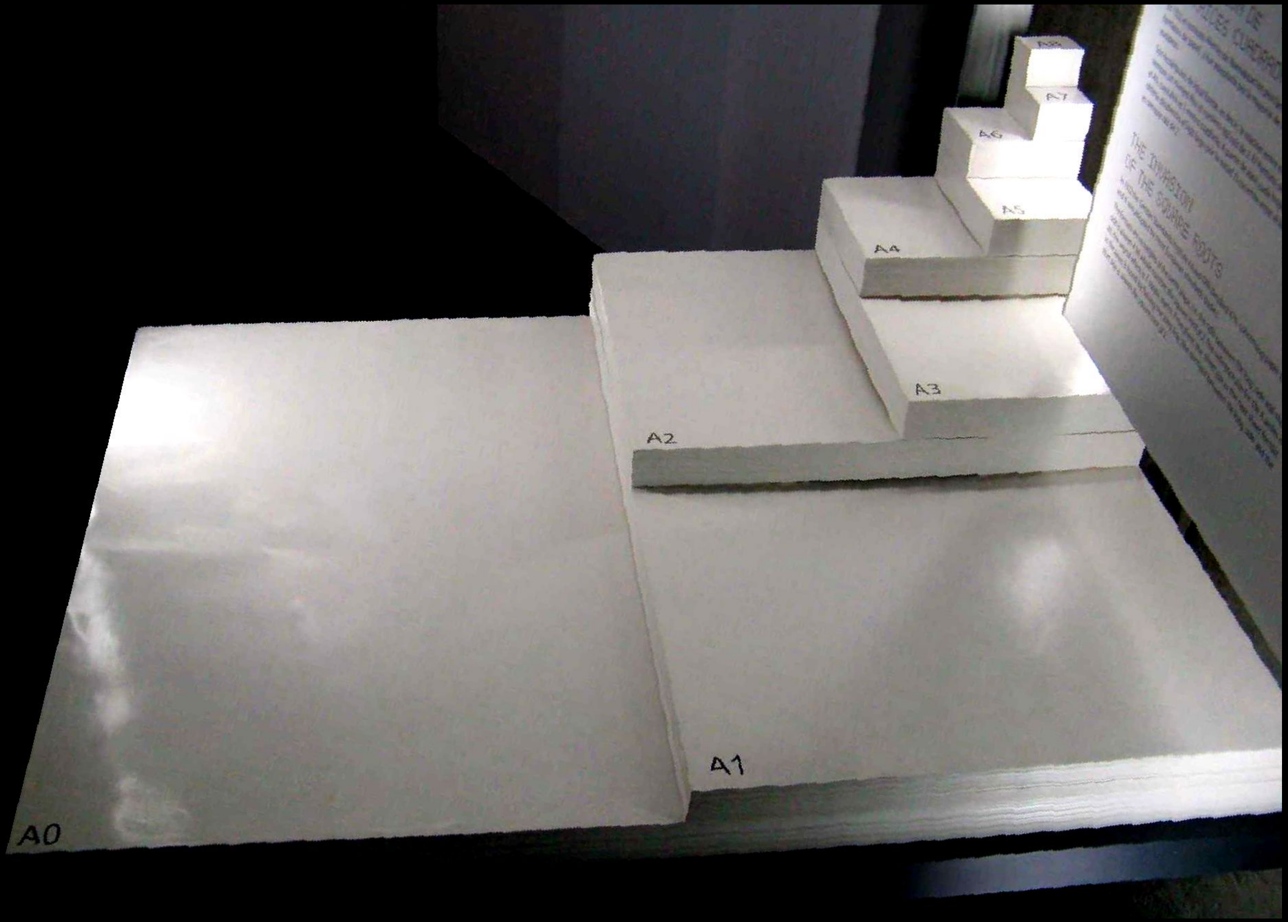
Invasion of the Square Root



Challenge

Using 2 sheets of the same A size, and their properties, can you show 2 ways to make a square, without a crease on the diagonal?

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A Little Bit of History

- 1786 Georg Christoph Lichtenberg - First preserved record of A4
- 1789 – 1799 The French were revolting - A2, A3, B3, B4 and B5
- 1790 France invited the British to help establish international metrics
- 1900s Dr Walter Porstmann formalized Lichtenberg's suggestion
- 1922 Porstmann's system was introduced as DIN 476 in Germany
- 1971 The UK Paper and Board manufacturers adopted A, B and C sizes
- 1975 ISO 216 based on DIN 476 becomes the standard for paper sizes
- 1996 A3, A4, A5, B4, B5 are included in CSS as page sizes