

Product rule for counting answers

Pearson Edexcel GCSE Mathematics 1MA1 • L008

Teacher use only • N5 Higher • Lesson resources

REACH FOR THE STAR | GCSE MATHEMATICS

Prerequisites: Systematic lists; multiplication. No algebra required.

Higher route: replace the 2-minute A3 feedback and the two 4-minute Challenge discussions with this 10-minute taught extension. Retain core P1–P2. Set HX1–HX2 as the final four minutes of that alternative, and use the shared challenges later if needed. The core route remains 60 minutes; the extension is not an additional compulsory ten minutes. Route choice reflects tier curriculum, not temporary support needs.

H1

10; five main courses for each of two starters.

H2

3 remain; $4 \times 3 = 12$ codes.

HX1

$4 \times 3 \times 2$ M1; 24 A1.

HX2

20 B1; after 5 first choices there are 4 unused choices for the second B1.

Diagnostic response

Adding choice counts only counts individual items. Multiplying by the full count again when repetition is forbidden overcounts. If combinations are restricted unequally, use separate cases or a systematic list; do not blindly multiply.

HX1–HX2 total 4 marks, AO1 2 and AO2 2 as local judgements for review. M=method, A=dependent accuracy, B=independent mark. Accept equivalent exact forms and valid alternatives. Original Reach for the Star questions, not official or endorsed Pearson material.

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