

Rearranging when the subject occurs twice answers

Pearson Edexcel GCSE Mathematics 1MA1 • L021

Teacher use only • A5 • Higher teaching route • Lesson resources

REACH FOR THE STAR | GCSE MATHEMATICS

Prerequisites: Linear equations with unknowns on both sides; factorising a common factor.

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

$4+k$; $x=y/(4+k)$, $k \neq -4$.

H2

$t=(v-2)/(a+b)$, provided $a+b \neq 0$.

HX1

$p=x(5+r)$ M1; $x=p/(5+r)$, $r \neq -5$ A1 (both formula and restriction).

HX2

The coefficient is the whole sum $3+k$, so division must be by that sum B1; $x=y/(3+k)$, $k \neq -3$ B1.

Diagnostic response

Do not divide by one term of a sum. Factor the subject first and keep the entire coefficient in brackets. Dividing by a potentially zero expression needs a restriction. With zero coefficient, return to the original equation rather than using the fraction.

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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