

Prior-knowledge relay and maths bingo for IB Maths

IB Math Revision · IB Maths SL and HL (AA and AI) · Student sheet

Name _____

Class _____

Date _____

No GDC needed.

Starter (5 minutes)

1. Find someone who can expand $(2x - 3)^2$.
2. Find someone who can find the gradient of the line through (1, 2) and (4, 11).
3. Find someone who can simplify $(x^3)^2 \times x^{-4}$.
4. Find someone who can solve $x^2 - 5x + 6 = 0$.

Main activity (30 minutes)

Task A: Leg 1: number and algebra

Each answer is passed to the next person.

- a. Evaluate $8^{2/3}$. Pass on A .
- b. Solve $2^x = A^3$. Pass on $B = x$.
- c. Find the sum of the first B terms of 3, 7, 11, ... Pass it on as C .
- d. Write C as a product of prime factors.

Task B: Leg 2: functions

Each answer is passed to the next person.

- a. $f(x) = 3x - 5$. Find $f(4)$. Pass on A .
- b. $g(x) = 2x + 1$. Find $g^{-1}(A)$. Pass it on as B .
- c. Solve $x^2 - Bx - 10 = 0$ and pass on the positive root as C .
- d. Write down the vertex of $y = (x - C)^2 + 2$.

Task C: Leg 3: triangles and data

Each answer is passed to the next person.

- a. A right-angled triangle has shorter sides 6 cm and 8 cm. Find the hypotenuse. Pass on A .
- b. The mean of four numbers is A . Three of them are 7, 12 and 9. Find the fourth. Pass it on as B .
- c. A right-angled triangle has shorter sides 5 and B . Find the hypotenuse. Pass it on as C .
- d. In that triangle, find the exact value of $\cos \theta$, where θ is the angle opposite the side of length 5.

Extension

- 1. Find the exact distance between $(1, 2)$ and $(4, 6)$, and the midpoint.