IQM3004 A1 Teacher marking exercise

IQM3004 Mathematics Assessment 1 Paper 1

Selected synthetic examples for teacher standardisation. Review before distribution.

Use the approved question paper and marking guidance alongside these extracts. Read each selected extract and record the evidence and criterion judgement independently before consulting the separate reference commentary. Partial excerpts cannot establish a whole-script or whole-portfolio mark.

Selected task A6 a

Distinguish choosing a valid test value from recognising why it disproves a universal claim.

Example X

n=10 gives 121, which is prime

Evidence and proposed judgement: _____
Reason: _____

Example Y

n=10 gives 121, so prime

Evidence and proposed judgement: _____
Reason: _____

Example Z

n=10 gives $121=11^2$, composite

Evidence and proposed judgement: _____
Reason: _____

Selected task B1 e

Both the horizontal substitution and the image point must match the translation.

Example X

y=f(x+2)-3; (-2,9)

Evidence and proposed judgement: _____
Reason: _____

Example Y

y=f(x+2)+3; (-2,15)

Evidence and proposed judgement: _____
Reason: _____

Example Z

y=f(x-2)-3; (0,12) maps to (2,9)

Evidence and proposed judgement: _____
Reason: _____

Selected task B3 f

Separate positive-area reasoning, integration method and final accuracy.

Example X

Area = integral from −2 to 2 of $(4-x^2)\,dx$. $[4x-x^3/3]$ gives 16/3 square units.

Evidence and proposed judgement: _____
Reason: _____

Example Y

Signed integral $[x^3/3-4x]$ from −2 to 2 = −32/3. I report area −32/3.

Evidence and proposed judgement: _____
Reason: _____

Example Z

Area = integral from −2 to 2 of $(4-x^2)\,dx = [4x-x^3/3]$ from −2 to 2 = $16/3-(-16/3)=32/3$ square units.

Evidence and proposed judgement: _____
Reason: _____