IQM3003 A1 Teacher marking exercise

Mathematics and Data Handling · Component 1 Paper 1

TEACHER STANDARDISATION | Selected extracts | Subject review required before distribution

These selected synthetic responses support discussion of how to apply the marking guidance. They do not form a complete assessment response. Use the approved question paper and marking scheme alongside this document. Read the identified question and mark each example independently. Record the evidence, mark and reason for your judgement before consulting the separate reference commentary.

Selected task 4d

Distinguishes the requested intercept from a correct calculation of a different intercept and tests the prohibition on follow-through.

Example X

Putting x=0 in my equation gives y=2.5, so the y-axis crossing is (0,2.5).

My evidence and marking judgement: _____

_____

Example Y

(0,1), from A.

My evidence and marking judgement: _____

_____

Example Z

At the y-axis crossing, I put y = 0. Then 4x/3 + 11/3 = 0, so x = −11/4. The coordinates are (−11/4, 0).

My evidence and marking judgement: _____

_____

Discussion: Which differences in these responses change the credit awarded? Which features should not affect the judgement?

Selected task 13b

Separates factorisation credit from correct sign analysis and interval selection.

Example X

(x−4)(x+3)≤0, so x≤−3 or x≥4.

My evidence and marking judgement: _____

_____

Example Y

(x−4)(x+3)≤0 gives x≤−3 or x≥4.

My evidence and marking judgement: _____

_____

Example Z

(x−4)(x+3)≤0; upward quadratic is non-positive between roots: −3≤x≤4.

My evidence and marking judgement: _____

_____

Discussion: Which differences in these responses change the credit awarded? Which features should not affect the judgement?

Selected task 20c

Separates a valid threshold method from correct interpretation of the first whole day.

Example X

0.92^t < 0.5 gives t > ln(0.5)/ln(0.92) = 8.31. I round to day 8.

My evidence and marking judgement: _____

_____

Example Y

500(0.92)^8 = 256.609..., which is about 250 litres, so day 8.

My evidence and marking judgement: _____

_____

Example Z

Solve .92^t<.5: t>ln(.5)/ln(.92)=8.31, first whole day 9.

My evidence and marking judgement: _____

_____

Discussion: Which differences in these responses change the credit awarded? Which features should not affect the judgement?