Indian Olympiad Qualifier in Mathematics Answer Key

October 2, 2025

For IOQM Exam 2025 held on 7th September (final)

	Set M1	Set M2	Set M3	Set M4
Q1	40	40	40	40
Q2	17	17	17	17
Q3	18	18	18	18
Q4	06	06	06	06
Q5	45	45	45	45
Q6	15	28	15	54
Q7	46	15	28	48
Q8	48	48	54	46
Q9	28	54	48	28
Q10	54	46	46	15
Q11	26	26	40	40
Q12	33	60	60	33
Q13	60	33	33	12
Q14	12	12	12	26
Q15	40	40	26	60

	Set M1	Set M2	Set M3	Set M4
Q16	22	29	22	22
Q17	23	22	29	29
Q18	40	23	42	23
Q19	29	42	23	40
Q20	42	40	40	42
Q21	49	66	03	53
Q22	66	49	36	03
Q23	03	53	49	36
Q24	53	03	66	66
Q25	36	36	53	49
Q26	10	19	10	10
Q27	40	10	19	19
Q28	91	10	40	40
Q29	19	40	10	10
Q30	10	91	91	91

Explanations

- A total of 2746 challenges were received (some challenges are potentially duplicates).
- Out of these, 1740 challenges were for **(Q11/M1, Q11/M2, Q15/M3, Q14/M4)**. The answer for this question was erroneously mentioned as 61 (which, as many students observed, is impossible) in the provisional key. The correct answer is 26 and this was a typo on our part. The challenge is **ACCEPTED** and the key has been accordingly changed to **26**.
- Another 430 challenges were about **(Q23/M1, Q24/M2, Q21/M3, Q22/M4)**. iI was pointed out that a different answer than one in the official key can be obtained if one considers the point C to coincide with N (degenerate situation). The calculations in this case are significantly simpler since the condition that C, D, M, N lie on a circle becomes vacuous (any three points lie on a circle). The committee felt that since the degenerate situation led to an explicit condition becoming vacuous, it cannot be considered as a valid case of the same problem. It is also clear that if a student worked out the complete span of possibilities in this case, they would have considered the non-degenerate case as a more fitting response. The committee therefore decided not to award any points for the alternate answer. The challenge is accordingly **REJECTED**.
- Some students (<10) also pointed out the obvious typo in the "notes" where $\gcd(\sqrt{a}, b)$ appeared in print instead of $\gcd(a, b)$. This has not confused most students (given that the notation is standard) and in any case the only situation in which it was used was when the gcd was required to be 1 - the alternate interpretation would not cause any issues since greatest common divisor of m and n is 1, iff same holds for that of m^2 and n. Therefore, no cause for compensatory marks arises.
- No other challenges were found to be significant/reasonable for a response. Note that a few students (< 10) also raised different queries (e.g. quality of print etc.) in the form. Please note that the form is meant only for academic challenges and these are not being responded to.