Following Color Through Two Model Beams

Scoring guide · one credit per question · review written work against each rubric

Following Color Through Two Model Beams

Question 1

Choice (4)

The blue counts add from 4 in P and 13 in Q, giving 17.

Question 2

The red rate remains 12 + 3 = 15 counts/s. The blue rate becomes 4 + 13/2 = 10.5 counts/s.

Question 3

It meets the red condition at 15 counts/s, but the 10.5 blue counts/s are below 11, so it fails the two-color requirement.

Question 4

Only P’s blue contribution is halved, from 4 to 2. With 13 from Q the blue rate becomes 15, while red stays 15. Both conditions are met.