Matching Two Pulses by Energy

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

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Question 1

Choice (1)

J delivers 12 × 2 = 24 energy units, and K delivers 8 × 3 = 24.

Question 2

J gives 12 × 0.5 × 2 = 12 energy units. K gives 8 × 0.75 × 3 = 18 energy units.

Question 3

They deliver the same 24 units, but the card absorbs different fractions for the two colors. It absorbs 12 units from J and 18 from K.

Question 4

Each incoming red photon contributes 0.5 × 2 = 1 energy unit on average. An 18-photon red pulse gives 18 absorbed energy units in the model.