# Checking Where Light Energy Goes in Two Films

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

### Checking Where Light Energy Goes in Two Films

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### Question 1

Choice (2)

P absorbs 100 − 50 − 40 = 10 units. Q absorbs 100 − 50 − 15 = 35 units.

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### Question 2

Subtract both measured paths from 100 for each film. The amounts absorbed are 10 and 35 units, a difference of 25 units.

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### Question 3

Both transmit 50 units. P reflects 40 units, while Q reflects only 15. That leaves different amounts available to be absorbed.

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### Question 4

P now absorbs 100 − 50 − 20 = 30 units, and Q absorbs 100 − 50 − 30 = 20. P absorbs more in the new trial, reversing the earlier ranking.

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### Question 5

P absorbed 30 units and gained 15 units of thermal energy, so it emits 15 units as light. Q absorbed 20 and gained 15 units of thermal energy, so it emits 5. P emits 10 more units after the pulse.