Checking a Product Added at the Start

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

Checking a Product Added at the Start

Question 1

Choice (2)

Subtract the two B particles present at the start from the six counted at 10 s. Q makes four new particles.

Question 2

P forms one new particle in 10 s, or 0.10 particle per second in the model. Q forms four new particles in 10 s, or 0.40 particle per second.

Question 3

P makes ten new B particles. Q makes 12 − 2 = 10 new B particles. Since each conversion makes one B, both convert the same amount of A even though Q converts it faster in the first interval.

Question 4

Compare the amount of newly formed B in the first ten seconds of both trials. If the inert addition produces about one new B like P while the B addition produces four, the early rate increase is associated with B rather than the addition of any two particles.