

a)

The diagram shows an equation for a Feynman diagram. On the left, a wavy line with a solid dot at its left end and a cross at its right end is equated to a sum of three terms. The first term is a dashed line with a solid dot at its left end and a cross at its right end. The second term is a dashed line with a solid dot at its left end, followed by a circular loop with two arrows indicating a clockwise direction. The third term is a dashed line with a solid dot at its left end, followed by a shaded gray oval labeled G^{II} . The oval is connected to the dashed line at two points, with two vertical lines (each with an upward arrow) and two curved lines (each with an arrow pointing towards the oval) forming a loop around the oval.

$$\text{wavy line with cross} = \text{dashed line with cross} + \text{dashed line with loop} + \frac{1}{4} \text{dashed line with } G^{II}$$