This sentence contains Einstein's equation  $E=mc^2$ This equation shows up in a separate line with no numbering:

$$E = mc^2$$

This is a full equation:

$$E = mc^2 (1)$$

This is a full series of equations aligned at the "=" sign:

$$E = mc^2 (2)$$

$$m = \frac{E}{c^2}$$

$$c^2 = \frac{E}{m}$$
(3)

$$c^2 = \frac{E}{m} \tag{4}$$