PATH I - Lets demonstrate all 3 math modes.

1 - INLINE MODE

This is einstein's equation inline $E = mc^2$.

2 - NEWLINE CENTER

$$E = mc^2$$

3 - NEWLINE CENTER LABEL

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

PART II -Lets demonstrate formating of multiple equations in math mode.

1 - BEGIN GATHERED (both equations centered)

$$a = b + c$$
$$d + e = f$$

2 - BEGIN ALIGNED (Both equation aligned on ampersand with tag)

$$a = b + c$$

$$d + e = f$$
(2)