1. Consider the following functional:

\[ \tau(f) = \lambda x. \text{if } x > 4 \text{ then } x - 3 \]
\[ \text{else if } x = 4 \text{ then } 2 \]
\[ \text{else } f(f(2 \cdot x + 1)) \]

Find the least fixed point of the above functional illustrating the steps clearly.

(The domain is the natural numbers \{0, 1, \ldots\})

2. Consider the following functional:

\[ \tau(f) = \lambda x. \text{if } x > 4 \text{ then } x - 4 \]
\[ \text{else } f(f(x \cdot x + 2)) \]

Find the least fixed point of the above functional illustrating the steps clearly.

(The domain is the natural numbers \{0, 1, \ldots\})

Neatness counts!