9. (12 points) As fall progresses the trees in the Arboretum gradually change color. The function f gives the percentage of leaves on a particular tree that have began to change colors as a function of the number of days since September 30. (October 1st corresponds to $t = 1$.) All answers should be in complete sentences.

(a) Give a practical interpretation in everyday terms describing what $f(10) = 15$ means in the context of this problem.

On October 10th 15% of the leaves have began to change color.

(b) Give a practical interpretation for what $f'(15) = 9$ means in the context of this problem.

On October 15th approximately 9% more of the tree's leaves will begin to change color during the day.

(c) Give a practical interpretation for what $f^{-1}(3) = 6$ means in the context of this problem.

When 3% of the leaves have began to change colors it is October 6th.

(d) Give a practical interpretation describing what $(f^{-1})'(40) = 0.5$ means in the context of this problem.

When 40% of the tree's leaves have begun to change colors, it will take approximately 12 hours for the next percent to change colors.