

$$f(x) = 0 \rightarrow r = 1.36523$$

$$f(x) = x^3 + 4x^2 - 10$$

$$x - f(x) = x$$

$$\Rightarrow g(x) = x$$

$$\Rightarrow g(x) = x - f(x) = x - x^3 - 4x^2 + 10$$

(a)

$$x^3 + 4x^2 - 10 = 0$$

$$\Rightarrow 4x^2 = 10 - x^3$$

$$\Rightarrow x = \frac{1}{2} \sqrt{10 - x^3} = g(x) \quad (b)$$

$$(c) \quad f(x) = 0$$

$$\Rightarrow \frac{f(x)}{f'(x)} = 0$$

$$\Rightarrow x - \frac{f(x)}{f'(x)} = x$$

$$g(x)$$

$$(c) \quad g(x)$$

$$= x - \frac{x^3 + 4x^2 - 10}{3x^2 + 8x}$$