

Post test 2

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$$F(x) = 2x^3 + 2x^2 - 2x - 2$$

$$\epsilon = 10^{-4} = 0,0001$$

1. $x_n = 0,9$ $x_{n+1} = 1,01$

2. $F(x_n) = 2(0,9)^3 + 2(0,9)^2 - 2(0,9) - 2 = -0,722$

$$F(x_{n+1}) = 2(1,01)^3 + 2(1,01)^2 - 2(1,01) - 2 = 0,08080$$

3. $F(x_n) \cdot F(x_{n+1}) = -0,722 \cdot 0,08080 \approx -0,05833$

4. $x_t = \frac{(x_n + x_{n+1})}{2} = \frac{(0,9 + 1,01)}{2} = 0,955$

5. $F(x_t) = 2(0,955)^3 + 2(0,955)^2 - 2(0,955) - 2 = -0,34398$

6. Cek: $F(x_t) \cdot F(x_n) = - \cdot - = +$

$$x_n = x_t = 0,955$$

$$F(x_n) = F(x_t) = 0,34398$$

$$x_{n+1} = 1,01$$

Iterasi	x_n	x_{n+1}	x_t	$F(x_n)$	$F(x_{n+1})$	$F(x_t)$	$F(x_t) \cdot F(x_n)$
1.	0,9	1,01	0,955	-0,722	0,80802	0,34398225	+
2.	0,9687	1,0625	1,0136	-2,4263	0,93123	0,126347	-
2	0,9499773	1,00006834	0,90002282	-0,00008135	0,00546757	0,00018256	-