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DEPT: MECHANICAL ENGINEERING

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Assignment 7

1. $X_{fuel} = 6 \text{ cm}$

$C = 2.2 \text{ cm}^3/\text{hr}$

$t_f = 0.3$

$m = 20$

$n = 15$

$\Delta x = 0.3$

$\Delta t = 0.02$

$r = 0.488889$

$$r = 2.2 \times \left(\frac{0.02}{(0.3)^2} \right) = 0.488889$$

$x =$	0	1	2	3	4	5	6	7	8
$t =$		0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.4
0	0	0	0.22	1.08	2.43	4.32	6.75	9.72	13.23
1	0.02	0	0.534	1.344	2.694	4.584	7.014	9.984	13.494
2	0.04	0	0.668933	1.608	2.958	4.848	7.278	10.248	13.758
9		10		11		12		13	
2.7		3		3.3		3.6		3.9	
21.87		27		32.67		38.88		45.63	
22.134		27.264		32.934		39.144		45.894	
22.398		27.528		33.198		39.408		46.158	
15		16		17		18		19	
4.5		4.8		5.1		5.4		5.7	
60.75		69.12		78.03		87.48		97.477	
61.014		69.384		78.294		87.744		97.734	
61.278		69.648		78.558		88.008		97.86893	