

Discrete Structures

11/2/25

HW 8

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4.10.5

e	2	2	4	12
f	0	2	6	18
k	0	1	2	3

e: 12

4.10.7

	Iteration Number				
	0	1	2	3	4
a	59				
d	13				
q	0	1	2	3	4
r	59	46	33	20	7

4.10.16 $4131/2431 = 2431 \cdot 1 + 1700$ $2431/1700 = 1700 \cdot 1 + 731$
 $1700/731 = 731 \cdot 2 + 238$ $731/238 = 238 \cdot 3 + 17$
 $238/17 = 17 \cdot 14 + 0$ $\gcd(4131, 2431) = 17$

4.10.19

A	1570							
B	488							
a	1570	488	106	64	42	22	20	2
b	488	106	64	42	22	20	2	0
r	488	106	64	42	22	20	2	0
gcd								2

5.1.15 $a_n = -\frac{n-1}{n}$