

#3-1.1 MPYS

- 1) a. common difference -0.5
 b. common difference $+2$
 c. cd is $+0.8$

2) $-18, -12, -6, 0, 6, 12, \dots$

3) a. $u_1 = 17.25$

~~$u_n = u_{n-1} - 2.31$~~ $u_n = u_{n-1} - 2.31 \quad n \geq 2$

~~$u_{15} = 15.09$~~ $u_{15} = 15.09$

b. $u_1 = 22$

$u_n = u_{n-1} + 3 \quad n \geq 2$

$u_{24} = 91$

- 4) a) yes, $d = 50$
 b. no

5) a. $u_1 = 8$

$u_n = u_{n-1} - 4 \quad n \geq 2$

b. $u_1 = 40$

$u_n = u_{n-1} - 5 \quad n \geq 2$

6)

Figure	1	2	3	4	5	12	32
segments	4	10	16	22	28	70	190

$u_1 = 4$

$u_n = u_{n-1} + 6 \quad n \geq 2$

7) a. $u_0 = 20$

$u_n = u_{n-1} + 2.4 \quad n \geq 1$

you will discover at 13 minutes

b. $u_0 = 20$

$u_n = u_{n-1} - 0.7 \quad n \geq 1$

you will discover at 29 minutes.

c. $u_0 = 20$

$u_n = u_{n-1} - 0.7 \quad n \geq 1$

combo rate
of fill & drain.

8) a. cd is 3.2

I did $51/35 = 16$

then $16/5 = 3.2$

b. $\frac{25.4}{44.6}, \frac{28.6}{47.8}, \frac{31.8}{51}, \frac{35}{54.2}, \frac{41.4}{58.6}$

c. $u_1 = 25.4$

$u_n = u_{n-1} + 3.2 \quad n \geq 2$

$u_{47} = 172.6$