

Section 1.1

1 2 3 4

5, 9, 13, 17, 21, 25 1379, 1383, 1387, 1391 ...

-20, -16, -12, -8, ...
0, 4, 8, 12, 16, ...

a) arithmetic or geometric

b) write the recursive formula

start rule

$$\begin{cases} u_1 = 5 \\ u_n = u_{n-1} + 4, n \geq 2 \end{cases}$$

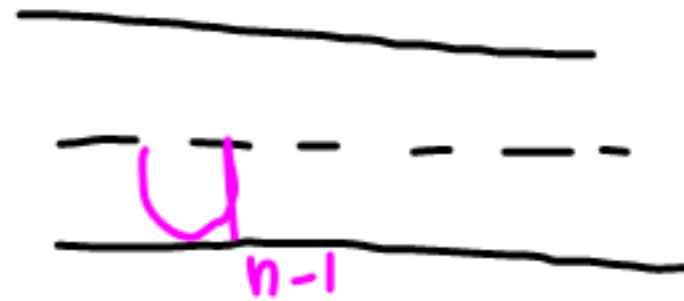
$$\begin{aligned} u_2 &= u_1 + 4 \\ u_3 &= u_2 + 4 \\ u_4 &= u_3 + 4 \\ u_{20} &= u_{19} + 4 \end{aligned}$$

c) find $u_{20} = 81$

u^{n-1} expand
 $u \cdot u \cdot u \dots$
 $u_{n-1} \quad u \cdot n - 1$
 u_{n-1} ✓

50, 39, 28, 17, ...

$$\begin{cases} u_1 = 50 \\ u_n = u_{n-1} - 11, n \geq 2 \end{cases}$$



7, 11, 15, 19, 23, 27, 31, 35, 39, 43

a) arithmetic or geometric

b) recursive formula

$$u_1 = 7$$
$$u_n = u_{n-1} + 4, n \geq 2$$

c) $u_{10} = 43$ /

$$u_{11} = u_{10} + 4 = u_0 + 4$$
$$= 43 + 4$$

Common d.fference
4

0, 4, 8, 12, 16 ...

3.7, 7.7, 11.7, 15.7 ...

25, 31, 37, 43 ...

a) arithmetic or geometric

b) write the recursive formula

$$\begin{cases} u_1 = 25 \\ u_n = u_{n-1} + 6, n \geq 2 \end{cases}$$

~~$u_1 = u_0 + 6$~~
 $u_0 = u_{-1} + 6$

c) find $u_{15} = u_{15-1} + 6 = u_{14} + 6$

3.7, 5.2, 6.7, 8.2 ...

$$\begin{cases} u_1 = 3.7 \\ u_n = u_{n-1} + 1.5, n \geq 2 \end{cases}$$

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