

Patterns

$$17, 23, 29, 35, 41, \dots, \underline{47}, \underline{53}$$

\swarrow \swarrow \swarrow \swarrow \swarrow \swarrow
 $+6$ $+6$ $+6$ $+6$ $+6$ $+6$

$$1.01, 1.001, 1.0001, \dots, \underline{1.00001}$$

\downarrow $\underbrace{\quad\quad\quad}_2$ $\underbrace{\quad\quad\quad}_3$ $\underbrace{\quad\quad\quad}_4$

$$12, 14, 18, 24, 32, \dots, \underline{42}, \underline{54}$$

\swarrow \swarrow \swarrow \swarrow \swarrow \swarrow
 $+2$ $+4$ $+6$ $+8$ $+10$ $+12$

Describe

1.) $2, -4, 8, -16, 32, \dots, \underline{-64}$

\swarrow \swarrow \swarrow \swarrow
 $*-2$ $*-2$ $*-2$ $*-2$

$*-2$

2.) $1, 2, 4, 7, 11, 16, \dots, \underline{22}$

\swarrow \swarrow \swarrow \swarrow \swarrow \swarrow
 $+1$ $+2$ $+3$ $+4$ $+5$ $+6$

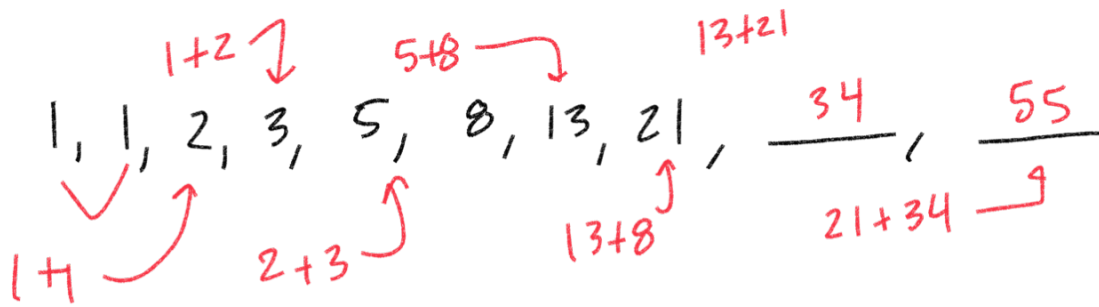
Add consecutive whole numbers

3.) $32, 48, 56, 60, 62, \dots, \underline{63}$

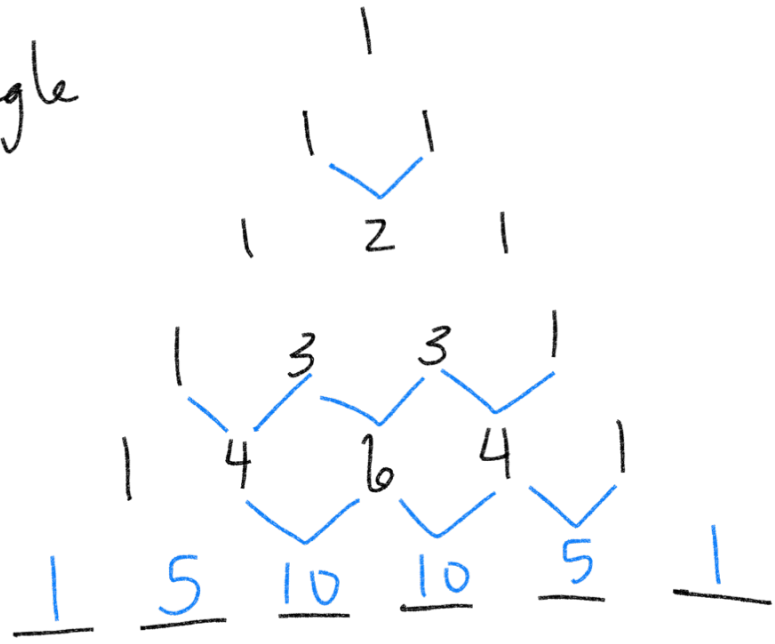
\swarrow \swarrow \swarrow \swarrow \swarrow
 $+16$ $+8$ $+4$ $+2$ $+1$

Interval is being halved

Fibonacci Sequence



Pascal's Triangle



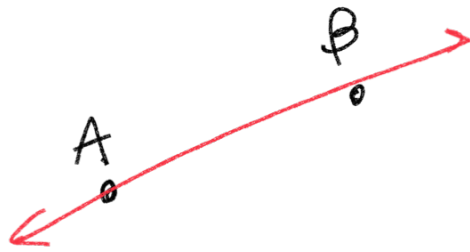
Challenge

OA, UEA, EEA, UA, —, —, —

Point • \emptyset dimensions singularity

Line - made up of two points

1 dimension



Plane - made of either

(1.) 3 non collinear points

(2.) A line and one non collinear point.

2 dimensions

