



Fibonacci

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History of Math
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Biography

- Leonardo de Pisa
- ~1175AD
- Alegeria
 - Hindu-Arabic numeral system
- *Liber Abaci* ~1202
 - Little Interest
- *Practica Geometriae* ~1220
 - Attention of Frederick II
 - Led to writing of *Liber Quadratorum* ~1225

Mathematical Contributions

Cubic equation $x^3 + 2x^2 + 10x = 20$

- Approach to problem
- Approximation - Sexigesimal to 6 places

Mathematical Contributions

Book of Square Numbers (1225)

- “Every square number can be composed as a sum of successive odd numbers beginning with one”
- Used mostly pure algebra
- Four numbers not in proportion
- Built rigorous mathematical foundation

Mathematical Contributions

Liber Abaci (1202)

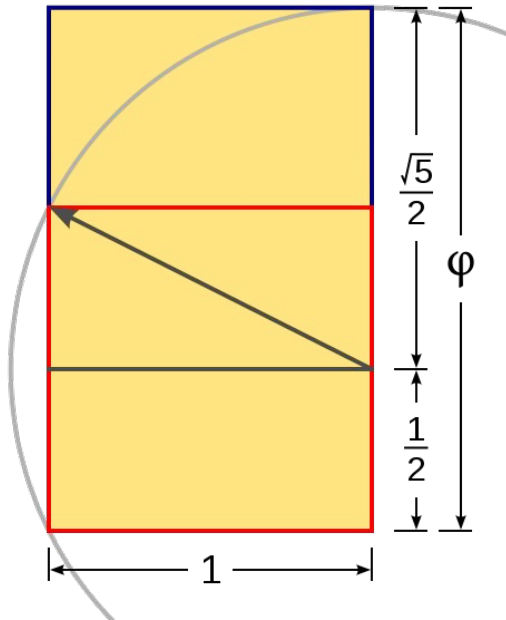
- Fibonacci sequence

0, 1, 1, 2, 3, 5, 8, 13, ...

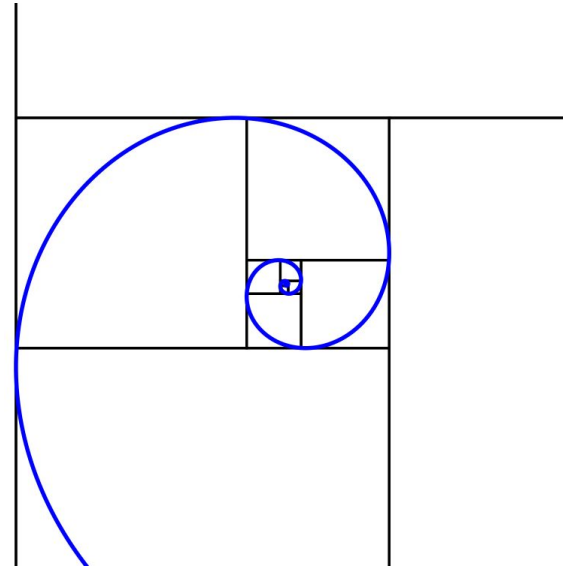
$$F_n = F_{n-1} + F_{n-2}$$

Mathematical Contributions

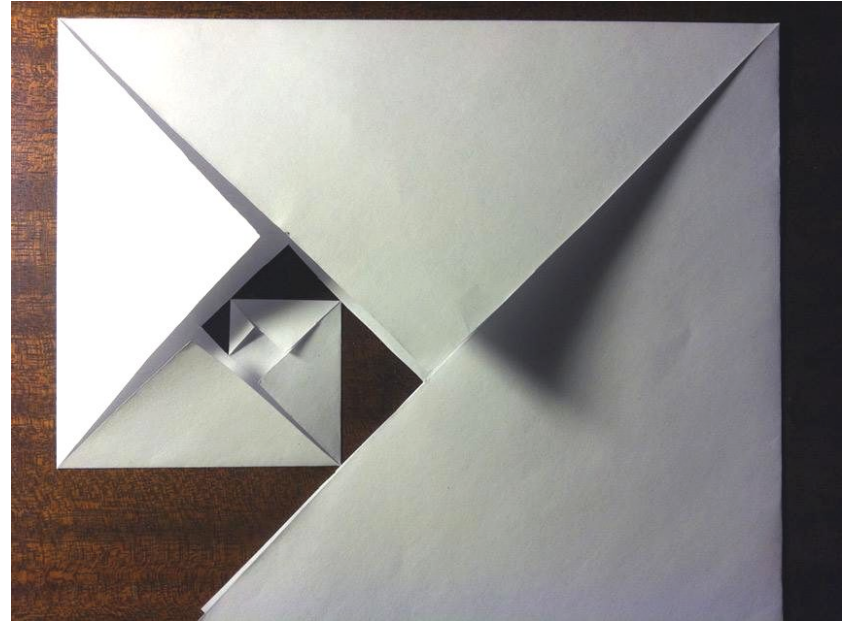
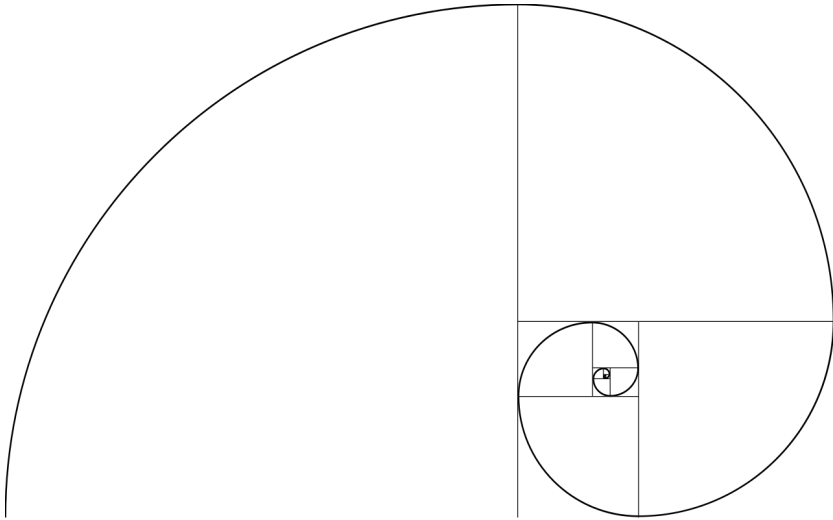
Golden Rectangle

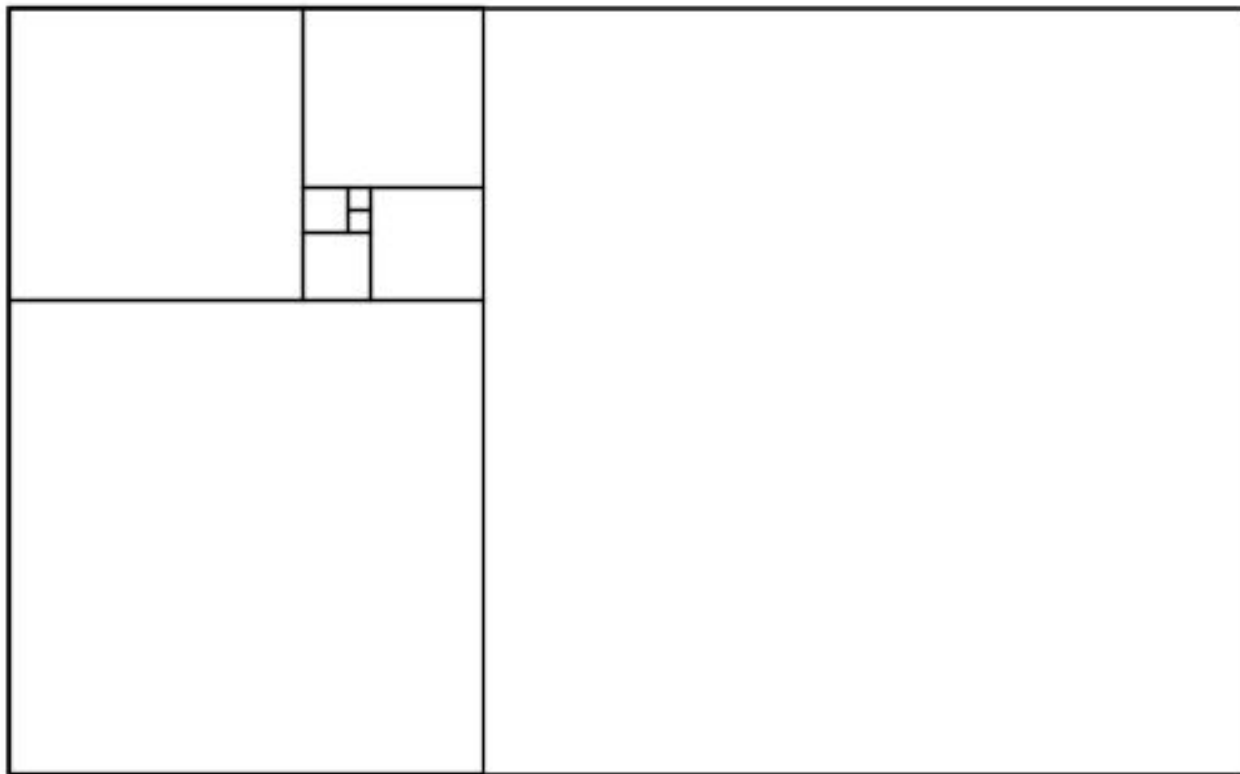


Golden Spiral

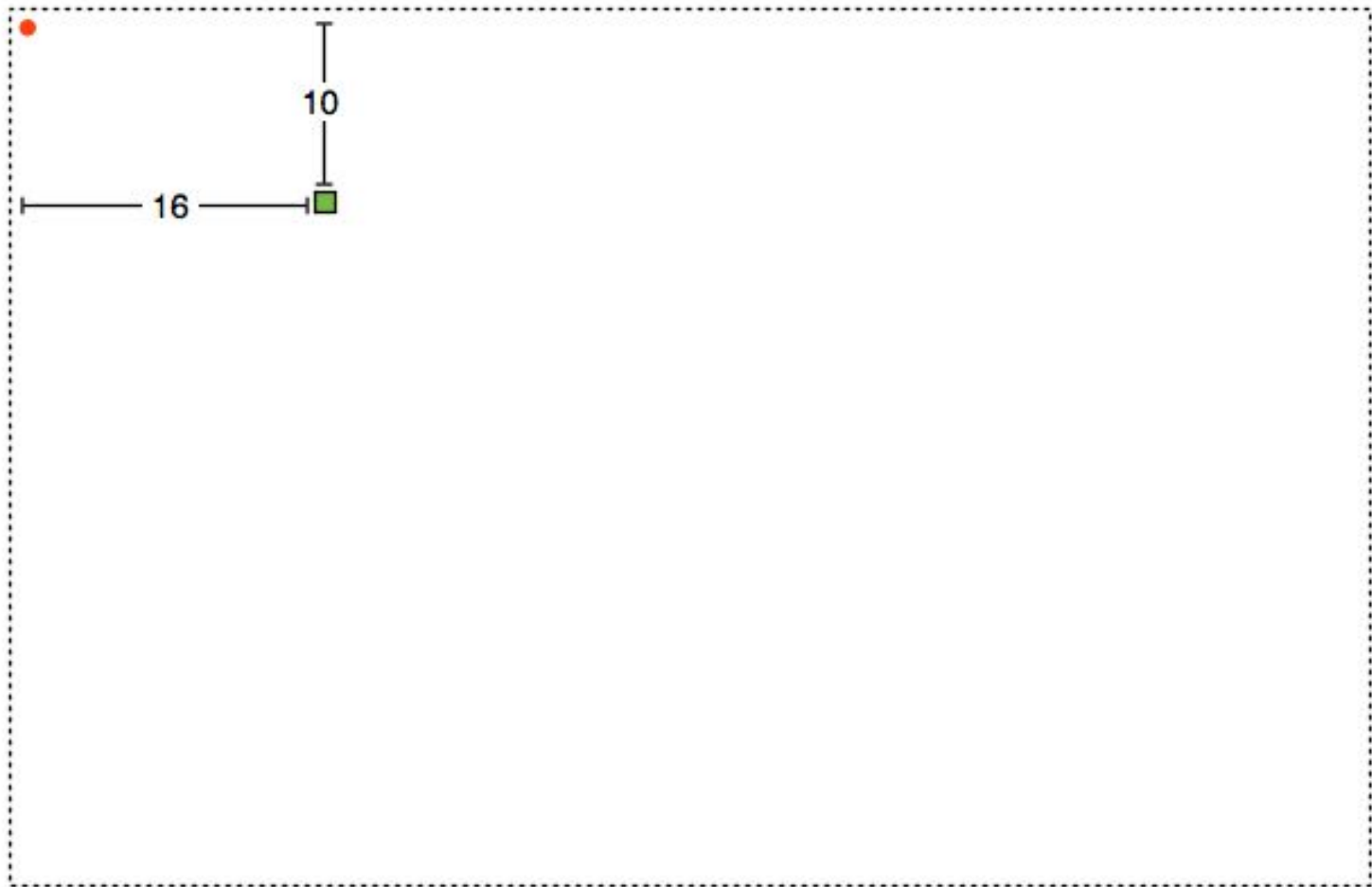


Golden Spiral Activity

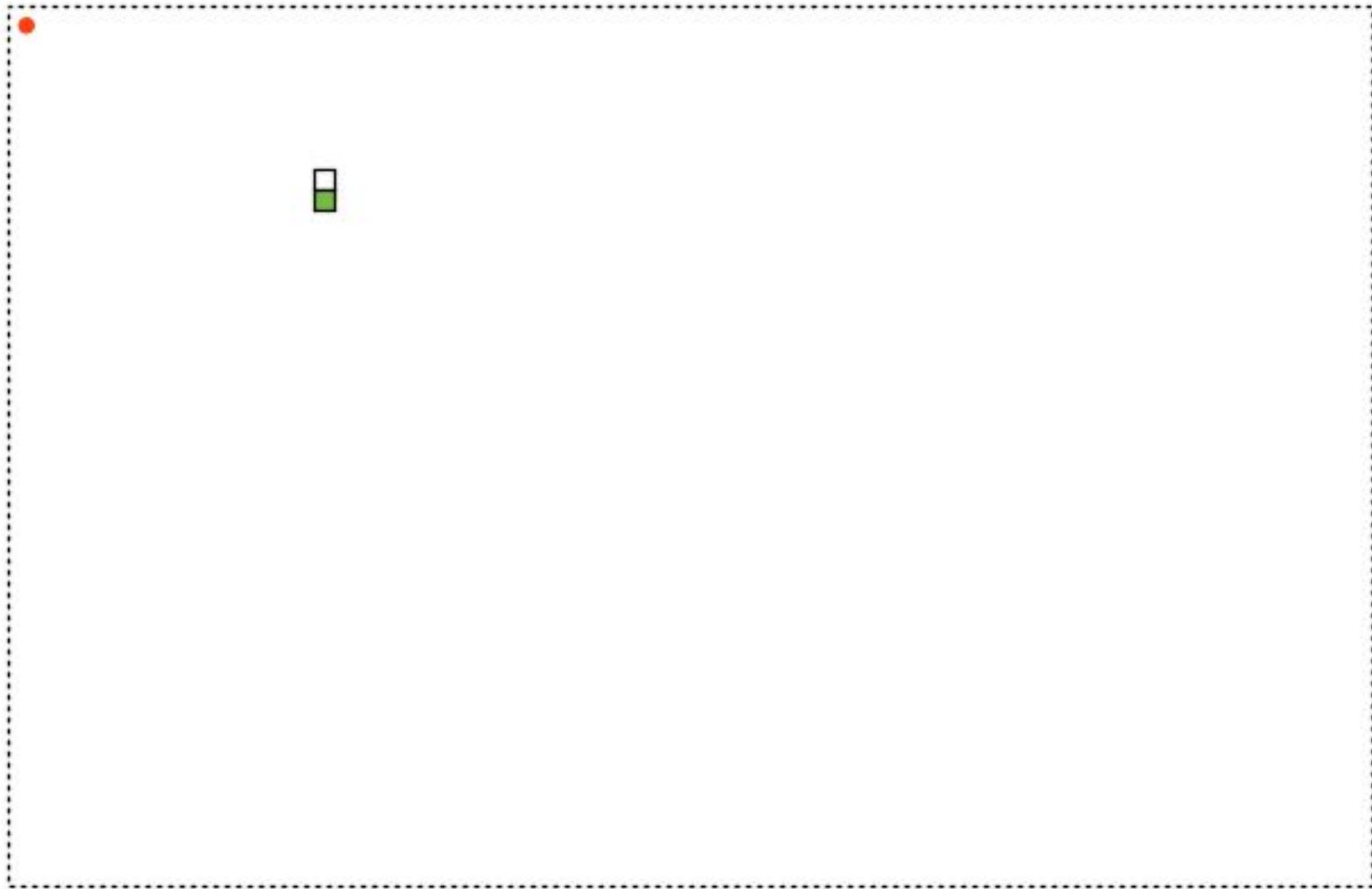




1



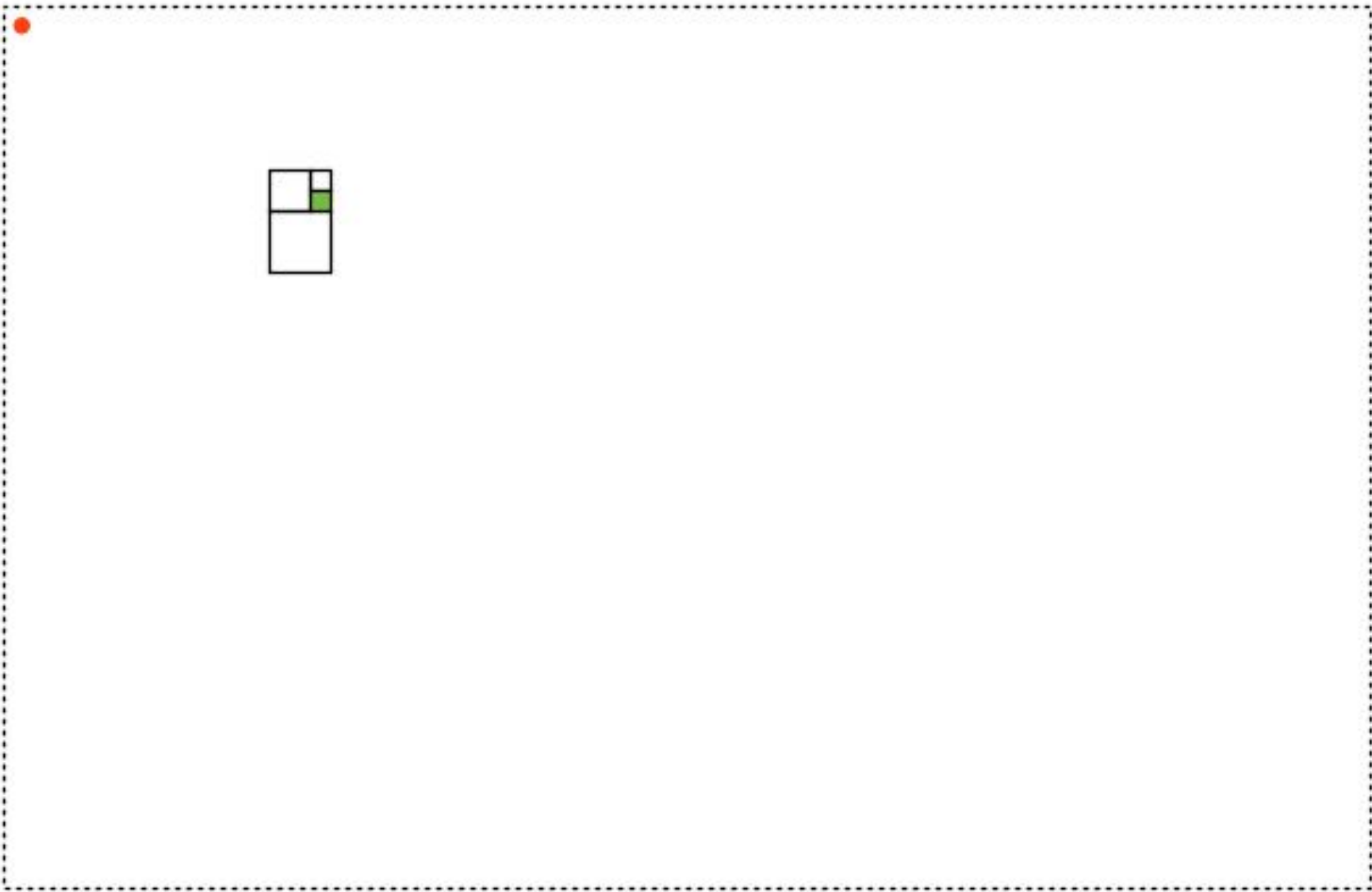
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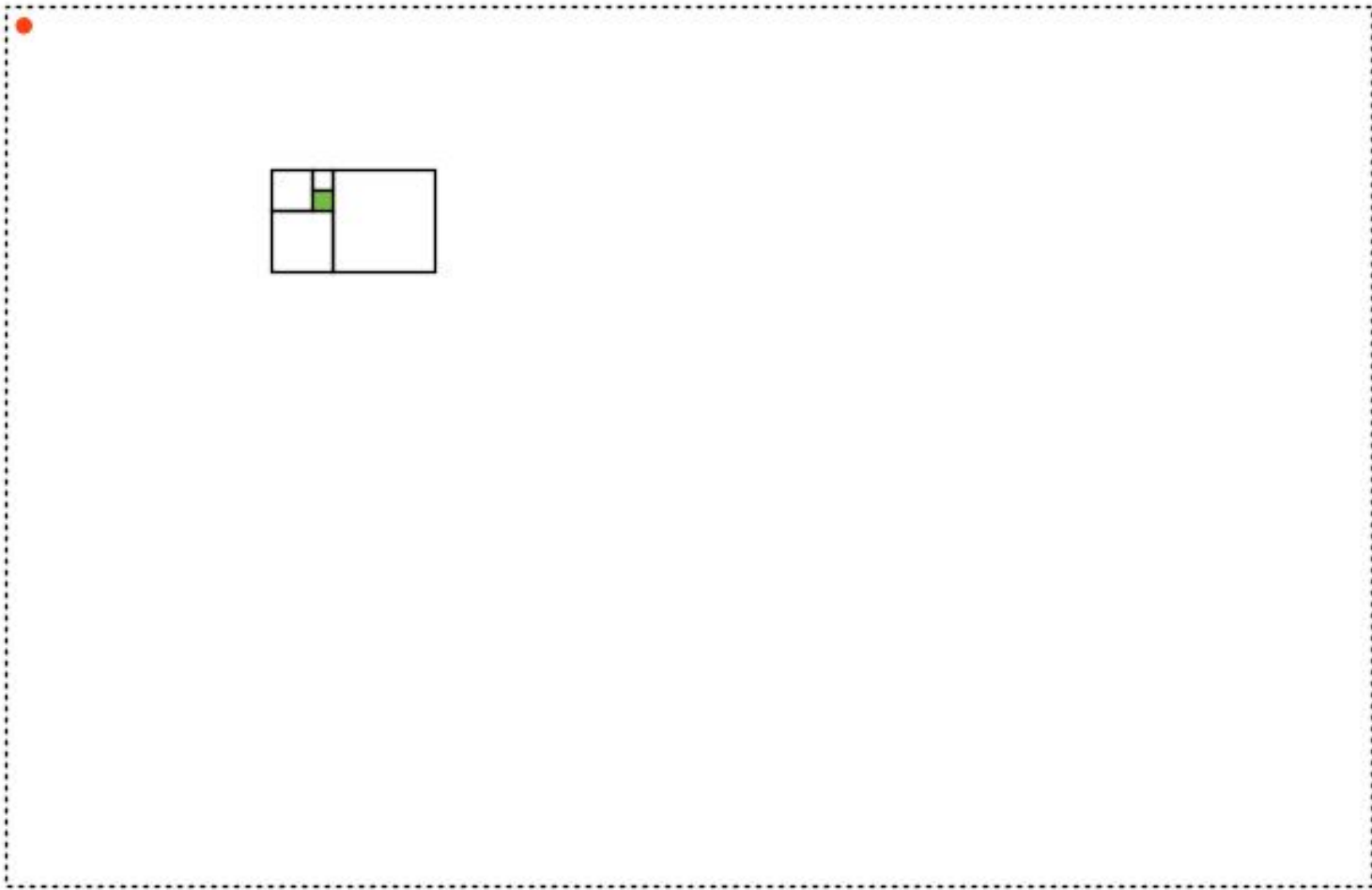
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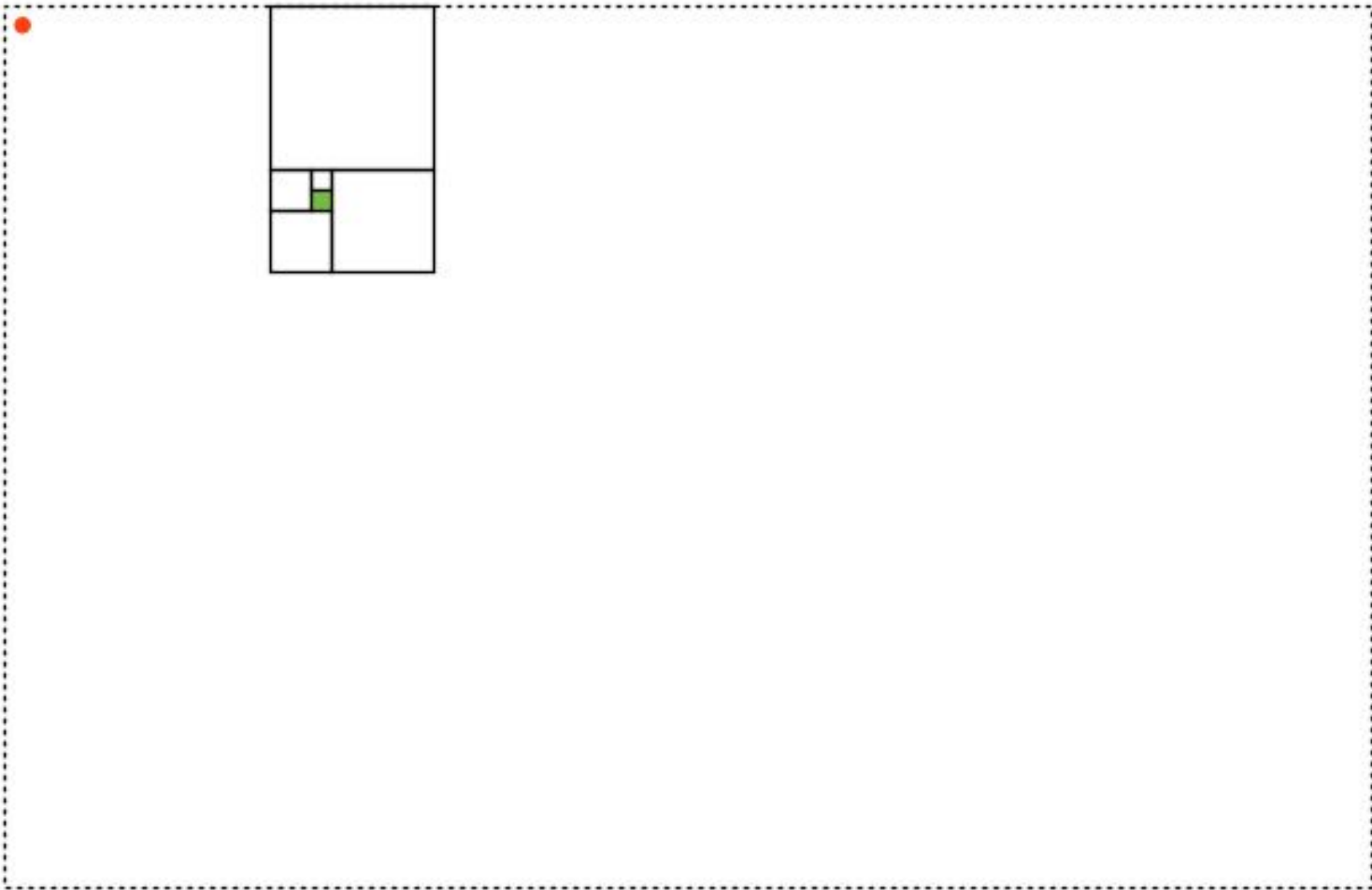


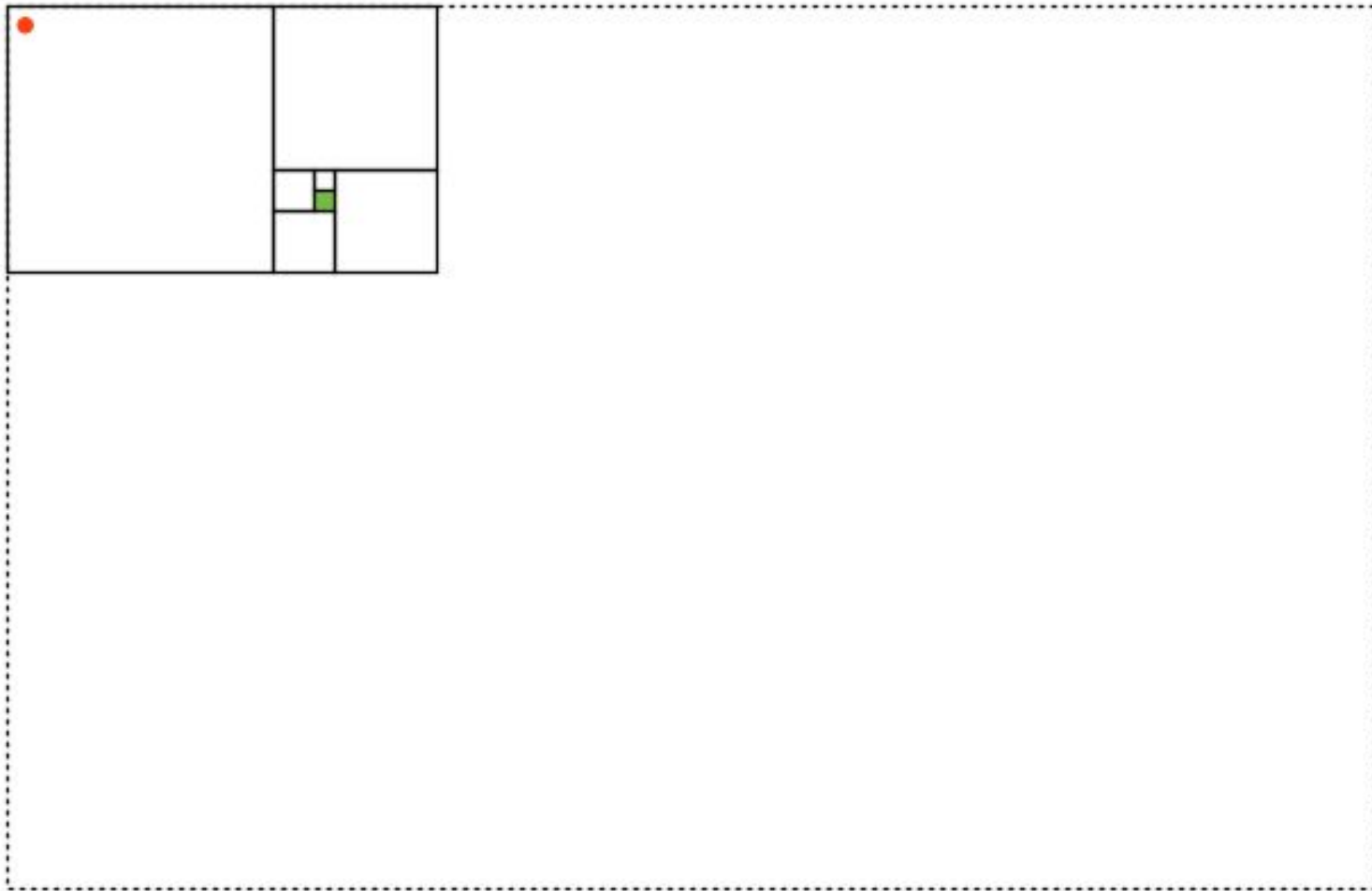
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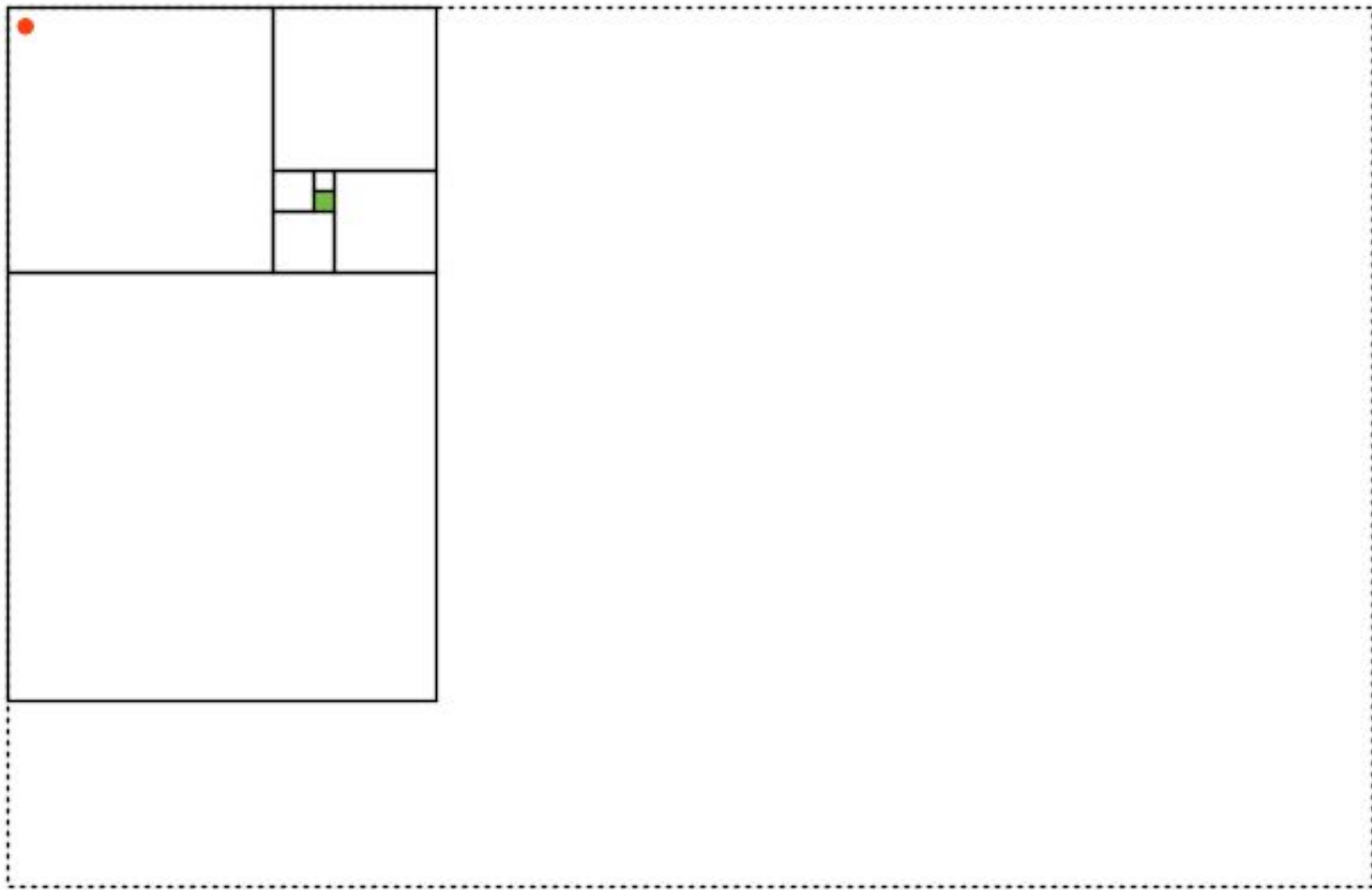


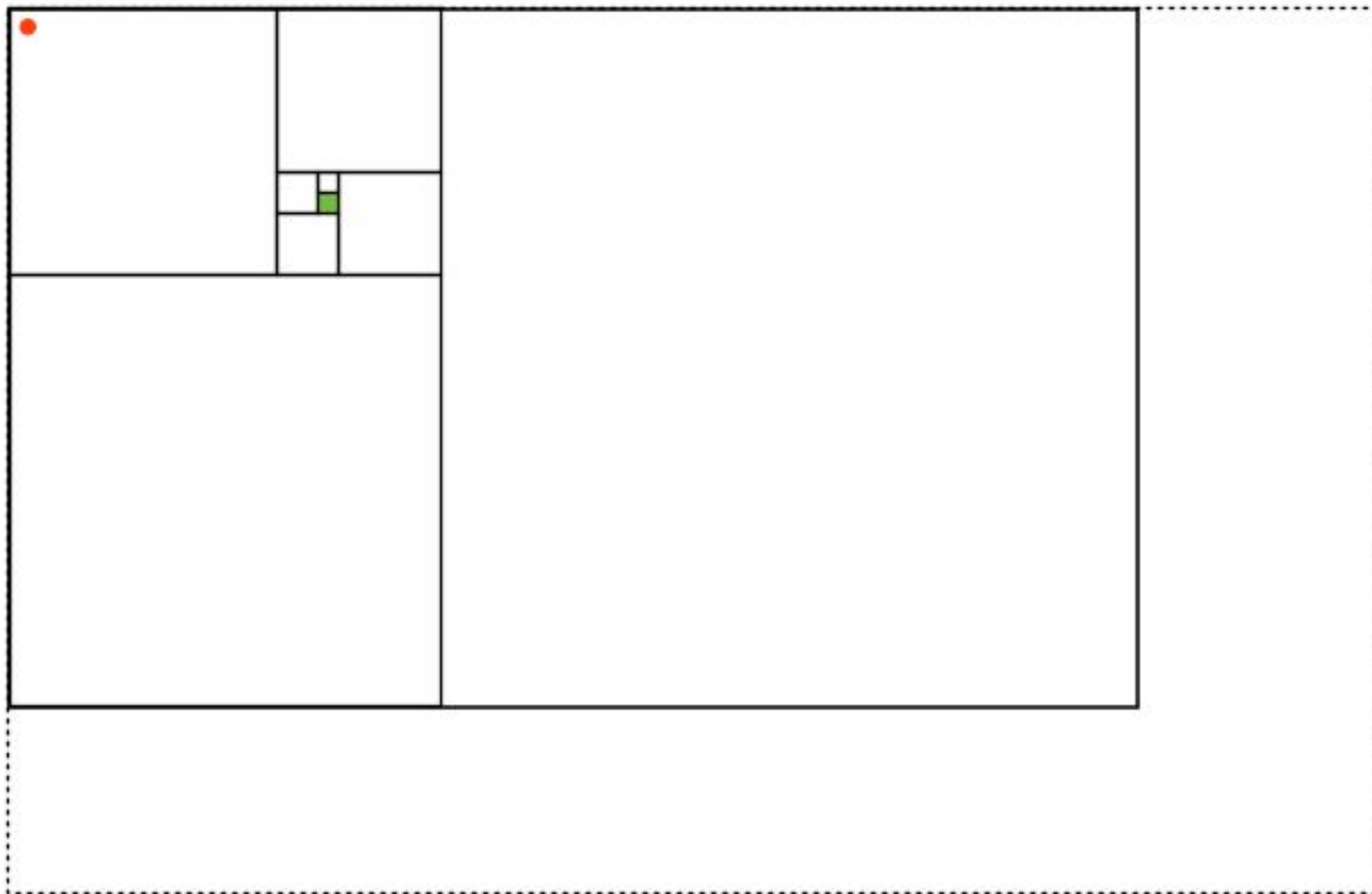
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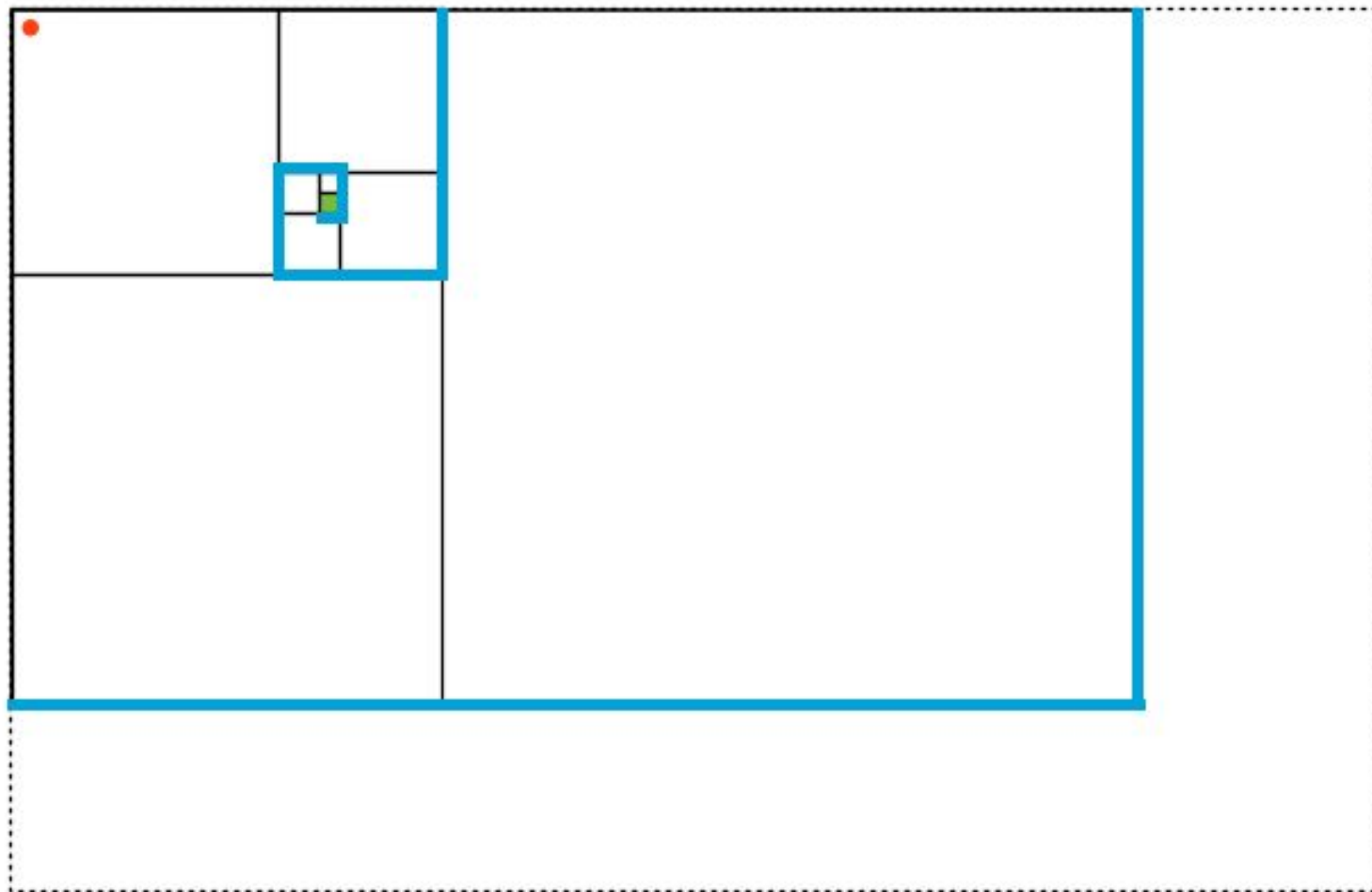


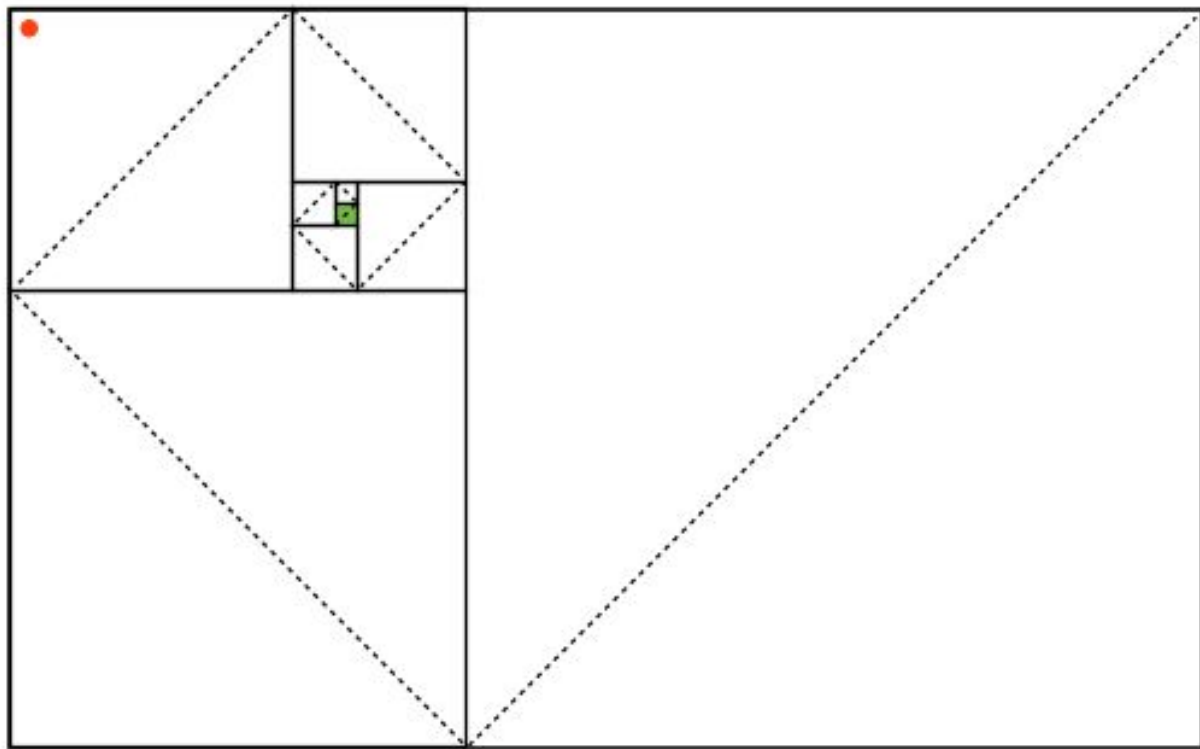




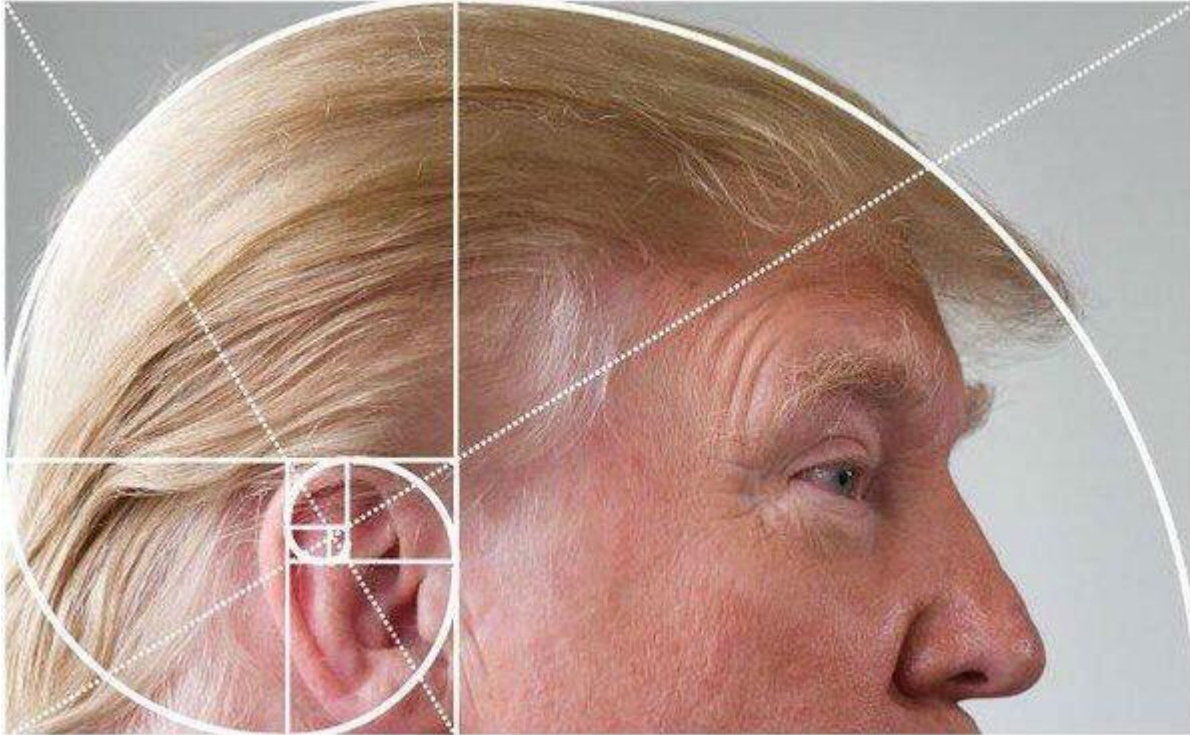








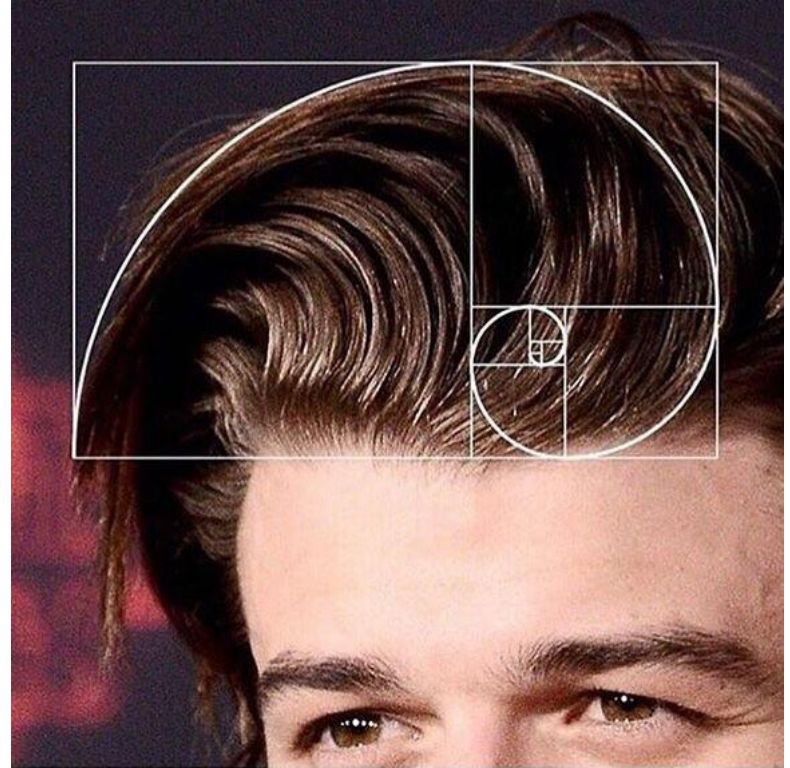
Fibonacci Fun Facts



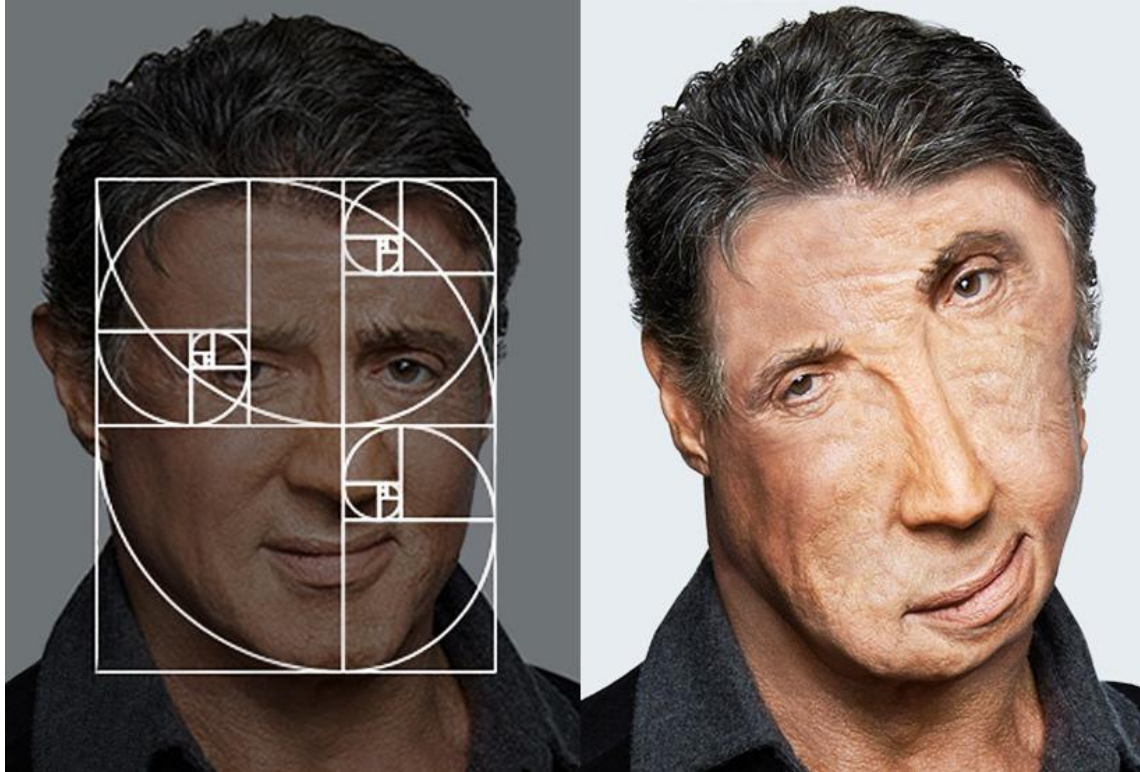
The real reason Trump won the 2016 election.

Fibonacci Fun Facts

Why Steve Harrington in
Stranger Things uses
four puffs of Farrah
Fawcett spray.



Fibonacci Fun Facts



How applying the Golden Spiral makes everything look better

Fibonacci Fun Facts

The reason behind
Sonic's aerodynamics.

