

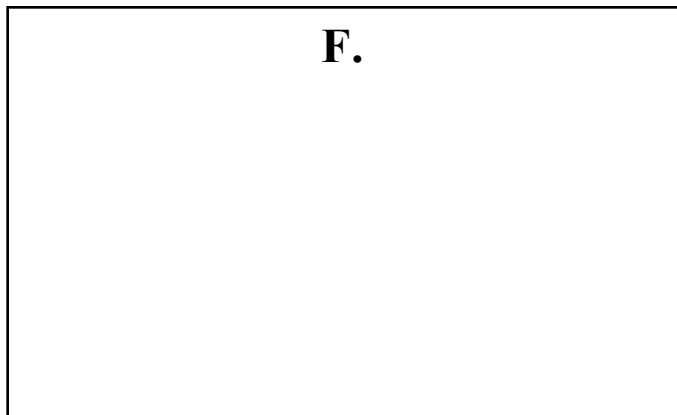
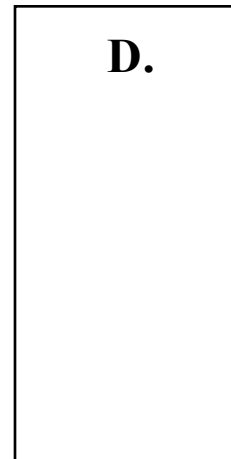
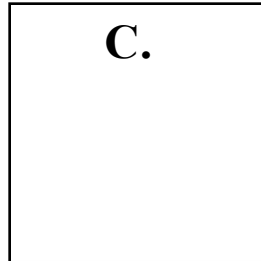
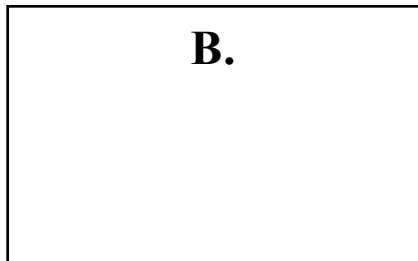
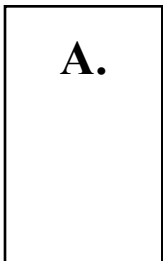
MathFLIX CHALLENGE

Golden Ratio: Illustrated

The Golden Ratio is a special number found in many places in geometry, nature, art and architecture. It is an irrational number that is approximately 0.618 or 1.618. In a **Golden Rectangle** the ratio of the length to the width is called the **Golden Ratio** and is always either 0.618 or 1.618 depending upon the placement of the measurements in the numerator and denominator.

Use this chart to calculate which of the following rectangles are golden rectangles. Color the golden rectangles.

Rectangle	Length	Width	Ratio: $\frac{\text{Length}}{\text{Width}}$	Ratio: $\frac{\text{Width}}{\text{Length}}$
A	21 mm	34 mm	$\frac{21}{34} = 0.618$	$\frac{34}{21} = 1.618$
B	55 mm	34 mm		
C	34 mm	34 mm		
D	30 mm	60 mm		
E	50 mm	5 mm		
F	89 mm	55 mm		



The **Fibonacci number sequence** is directly related to the **golden ratio** and **golden rectangles**. On the back of this paper, build your own golden rectangles by using two consecutive Fibonacci numbers for the length and width measurements.