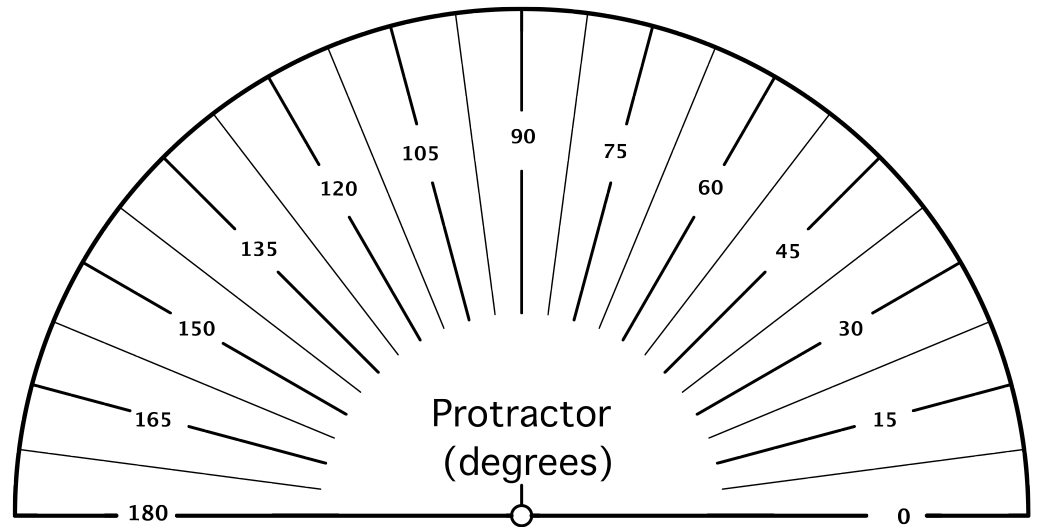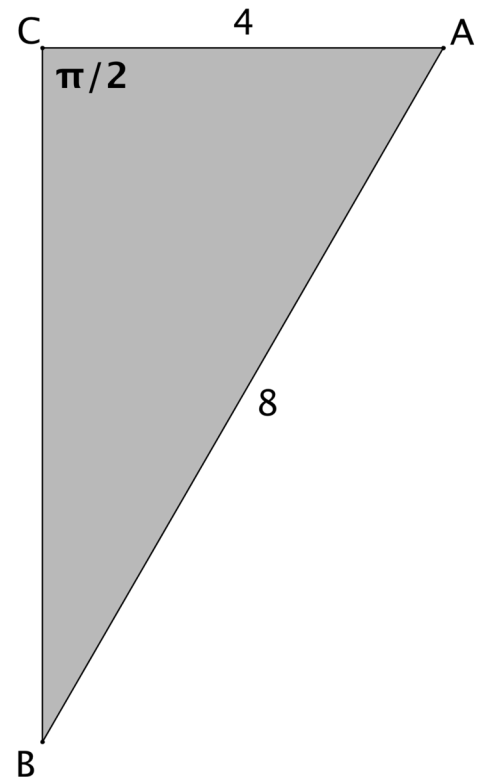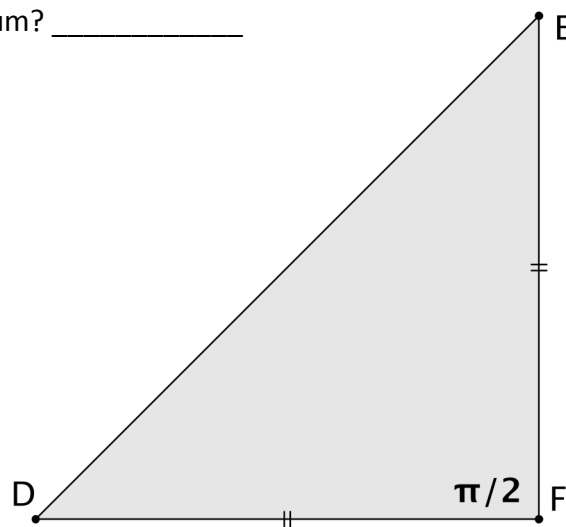# Making Sense of Radians

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Time for Pi

1. Compare both ProRadian Protractors to this degree-scaled protractor. Write down your observations; share them with a partner.

Protractor
(degrees)

90
105   75
120   60
135   45
150   30
165   15
180   0

2. Find the missing angle measures and the sums, using ProRadian2. What's each sum? _____

E

π/2 F

D

C ———— 4 ———— A

π/2

8

B

3. How are the units related?

Unit of measure	Sum of Angles in a Triangle	Sum of Central Angles in a Circle
degrees		
radians in decimal form (ProRadian1)		
radians in parts of π (ProRadian2)		

4. Using ProRadian2, measure each interior angle and find the angle sum for ABCD.
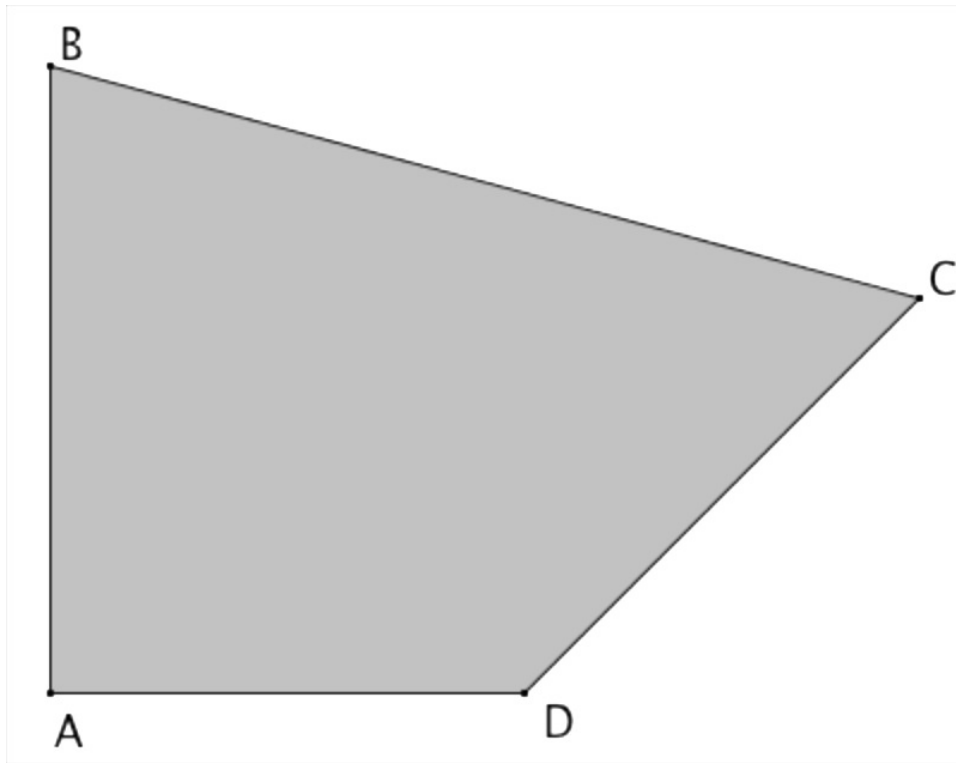
5. Measure the angles in this regular hexagon and complete the table in terms of π.
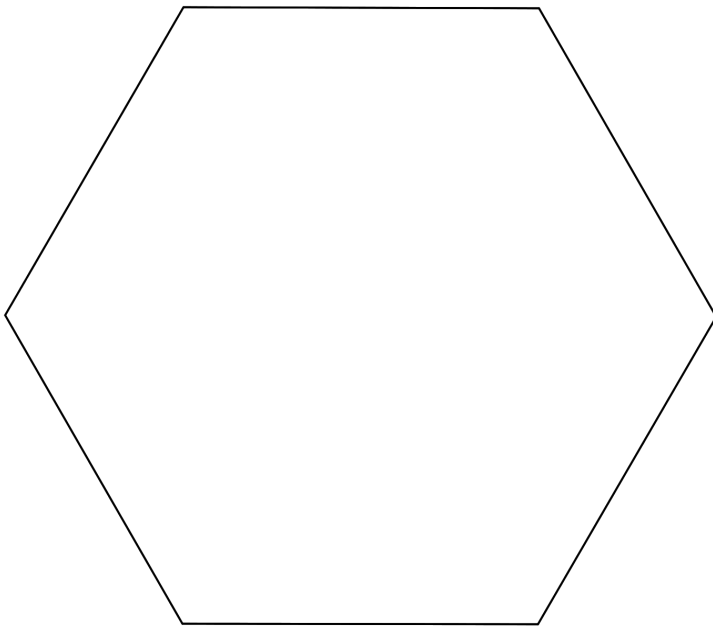
Regular Polygon	Sum of Int. Angles	One Interior Angle
triangle	π	
square		
pentagon		
hexagon		
octagon		
decagon		
n-gon		

6. Describe the patterns you see.