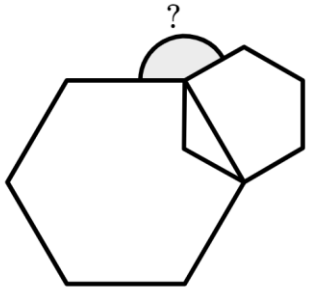
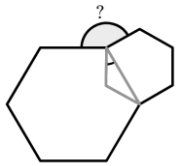
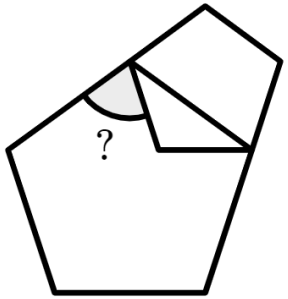
a)
The regular hexagons shown share two vertices.



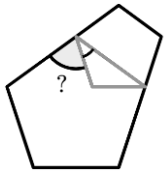
Find the size of the angle marked with a question mark.

What is the size of the interior angle of a regular hexagon?	$(6-2)\times 180° = 720°$ $720° \div 6 = 120°$
What is the size of the angle of the overlap at the vertices of the two hexagons?	 The triangle is isosceles $\frac{180° - 120°}{2} = 30°$
What are the angles at the point near the marked angle?	$120° - 30° = 90°$ $30°$ $120° - 30° = 90°$
What is the size of the missing angle?	$360° - 90° - 90° - 30° = 150°$

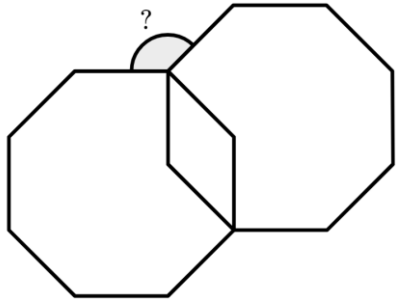
b)
The regular pentagons shown share two vertices.



Find the size of the angle marked with a question mark.

What is the size of the interior angle of a regular pentagon?	$(5-2)\times 180° = 540°$ $540° \div 5 = 108°$
What is the size of the angle of the overlap at the vertices of the two pentagons?	 The triangle is isosceles $\frac{180° - 108°}{2} = 36°$
What is the size of the missing angle?	

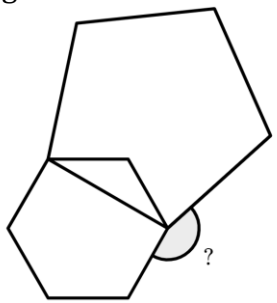
c)
The octagons shown are regular and share two vertices.



Find the size of the angle marked with a question mark.

What is the size of the interior angle of a regular octagon?	$(8-2) \times 180° = 1080°$ $1080° \div 8 = 135°$
What is the size of the angle of the overlap at the vertices of the two octagons?	
What are the angles at the point near the marked angle?	
What is the size of the missing angle?	

d)
The polygons shown are regular and share two vertices.



Find the size of the angle marked with a question mark.