

# Mathematics Class Slides

## Bronx Early College Academy

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2.1 Angle vocabulary, 13 October

2.2 Angle pair relationships, 15 October

2.3 Angle pair calculations, 19 October

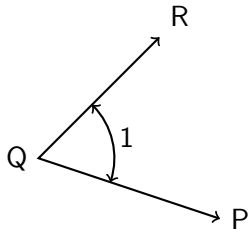
## GQ: How do we measure angles?

CCSS: HSG.CO.A.1 Know precise geometric definitions

2.1 Tuesday 13 Oct

### Do Now: Write down angle definitions

1. *Right angles* measure  $90^\circ$
2. *Perpendicular* lines meet at right angles.  $\overline{AB} \perp \overline{CD}$
3. *Acute angles* are  $< 90^\circ$
4. *Obtuse angles* are  $90^\circ < \angle m < 180^\circ$
5. A *straight line* or angle measures  $180^\circ$

Point  $Q$  is the vertexThe sides or *legs* are  $\overrightarrow{QR}$ ,  $\overrightarrow{QP}$ Written  $\angle 1$ ,  $\angle Q$ , or  $\angle PQR$

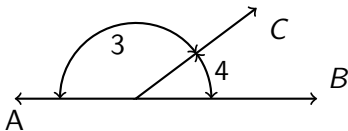
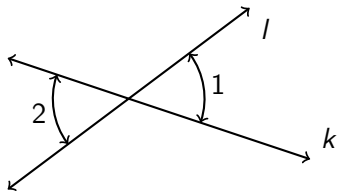
## GQ: How do we relate angles to each other?

CCSS: HSG.CO.A.1 Know precise geometric definitions

2.2 Thursday 15 Oct

### Do Now: Write down angle pairs

1. *Adjacent* angles share a leg (“next to each other”)
2. *Complementary* angles measures sum to  $90^\circ$
3. *Supplementary* angles sum to  $180^\circ$
4. *Vertical* or opposite angles made by intersecting lines (1, 2)
5. *Linear pairs*, adjacent angles making a straight line (3, 4)



## GQ: How do we calculate with angle pairs?

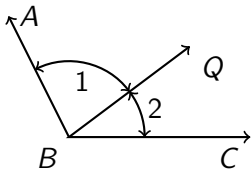
CCSS: HSG.CO.A.1 Know precise geometric definitions

2.3 Monday 19 Oct

### Do Now: Write down definitions

1. *Scalene* triangles have three unequal sides
2. *Horizontal*, sideways or level
3. *Vertical*, straight up and down
4. An angle's *measure*, it's size, is written  $m\angle$
5. *Angle Addition Postulate*  
Measures of adjacent angles sum to the resulting angle

$$m\angle 1 + m\angle 2 = m\angle ABC$$



## Angle pair warmup problems

1. *Complementary* angles sum to how many degrees?
2. *Supplementary* angles sum to how many degrees?
3. Given complementary angles  $\angle A$  and  $\angle B$  with  $m\angle A = 30^\circ$ . Find  $m\angle B$ .
4. Given  $m\angle A = 100^\circ$  and  $m\angle B = 2x$ . Find  $x$  such that angles  $\angle A$  and  $\angle B$  are supplementary.
5. Given vertical angles as shown. Find  $x$ .

