

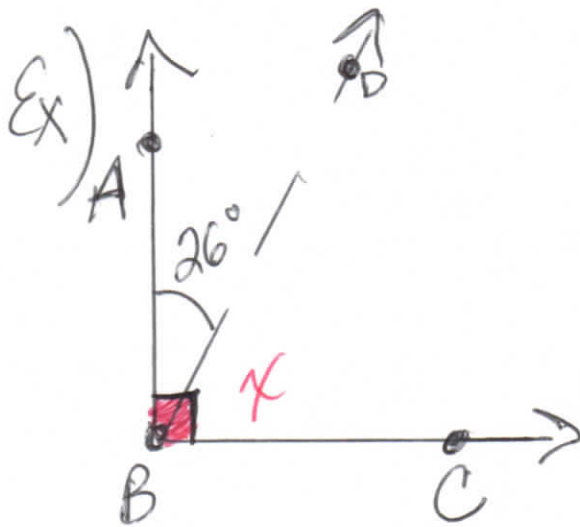
8/21/14  
Bridge  
Math

## Geometry Concepts: Angles

① Angles are measured in degrees.

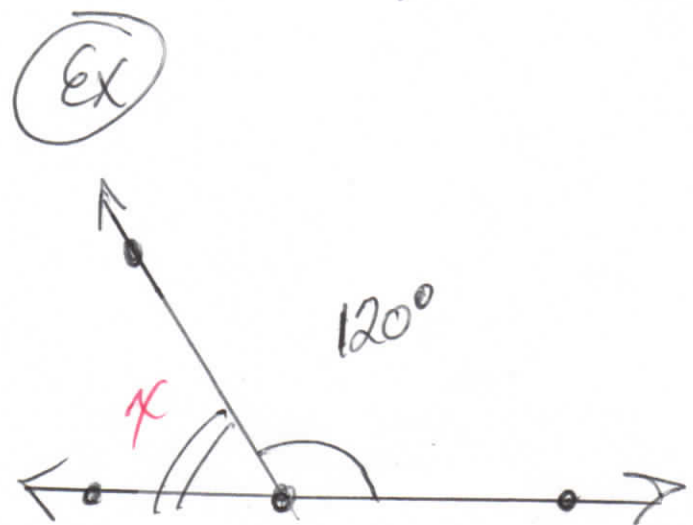
\* Two angles whose sum is  $90^\circ$  are said to be complementary.

\* Two angles whose sum is  $180^\circ$  are said to be supplementary.



$$90 = 26 + x$$

$$64^\circ = x$$

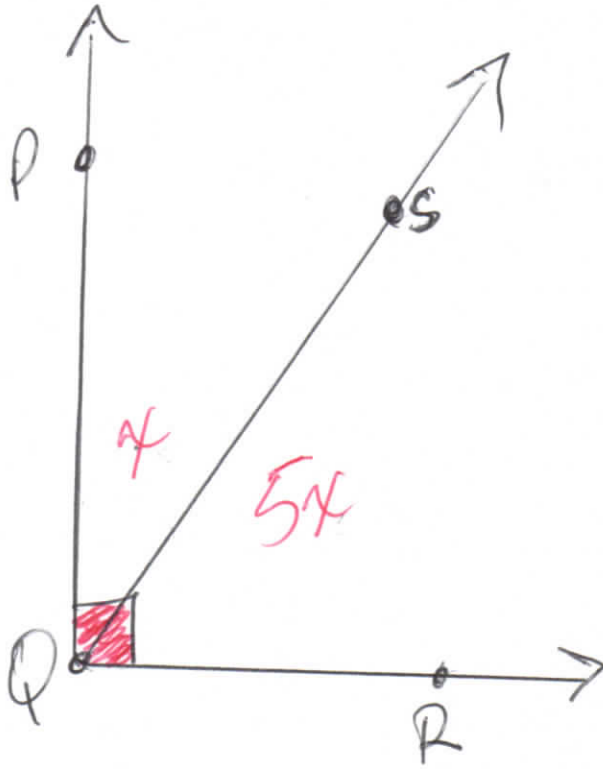


$$180 = x + 120$$

$$60^\circ = x$$

8/21/14

(Ex) Find the measure of an angle whose complement is five times its measure.



$$90 = 5x + x$$

$$90 = 6x$$

$$15 = x$$

$$\text{So, } \angle PQS = 15^\circ$$

$$\angle RQS = \cancel{15}$$

$$5(15) = 75^\circ$$

8/21/14

Ex) Find the measure of an angle whose complement is eight times its measure.

$$90 = 8x + x$$

$$90 = 9x$$

$$10^\circ = x$$

$$\text{So its complement} = 8(10) = 80^\circ$$

Ex) Find the measure of an angle whose supplement is  $10^\circ$  more than twice its complement.



$$180 = 10 + 2(90 - x)$$

$$180 = 10 + 180 - 2x$$

$$180 = 190 - 2x$$

$$-10 = -2x$$

$$5 = x$$

Correction on last example:

$$180 = 10 + [2(90 - x) + x]$$

$$10 = x$$

Correction