

# Honors Geometry

## Notes Section 14

### VOCABULARY

**Angle:** 2 rays that share a common endpoint ; 

**Vertex:** endpoint

**Acute Angle:** an angle more than 0 degrees, but less than 90 degrees

**Right Angle:** an angle = 90 degrees

**Obtuse Angle:** an angle more than 90 degrees, but less than 180 degrees

**Straight Angle:** an angle = 180 degrees

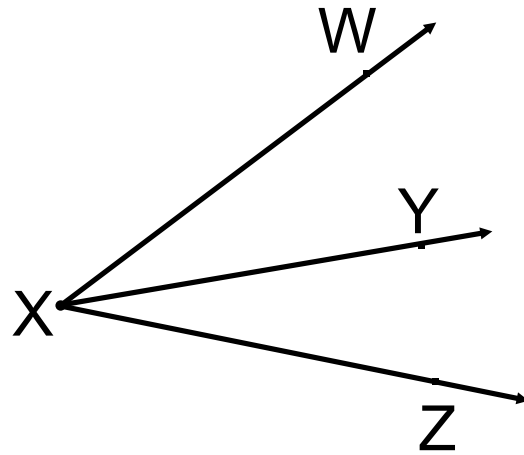
**Reflex Angle:** an angle more than 180 degrees, but less than 360 degrees

**Congruent angles:** angles with = measure

**Angle Bisector:** a ray that divides an angle into 2 congruent angles

**EXAMPLES**

1) Name 3 angles in the diagram.



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**POSTULATE 3**

| **Ray Endpoint - Ray Endpoint** |

(Protractor Postulate)

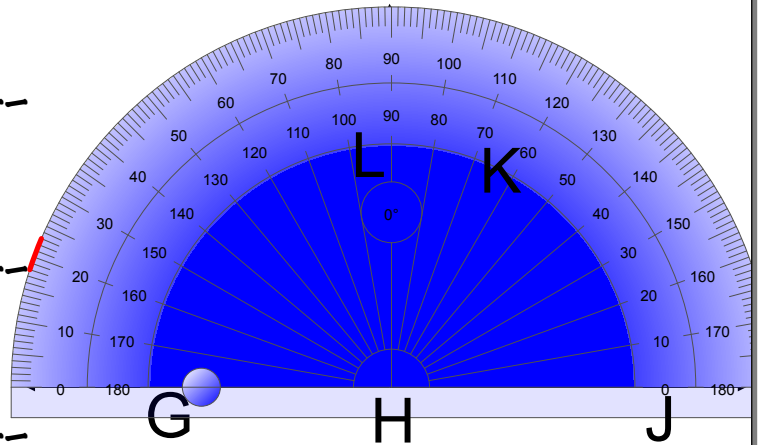
2) Find the measure of each angle, then classify.

a) angle KHJ -----

b) angle GHK -----

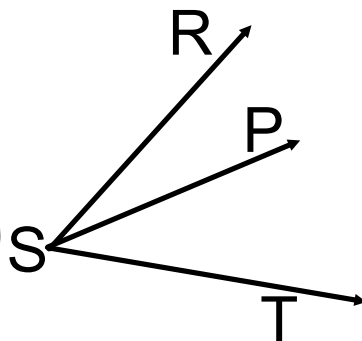
c) angle GHJ -----

d) angle GHL -----



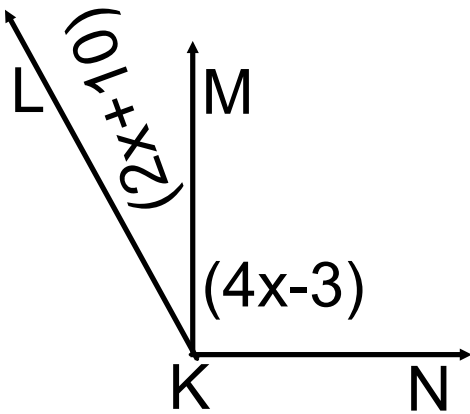
POSTULATE 4

(Angle Addition)

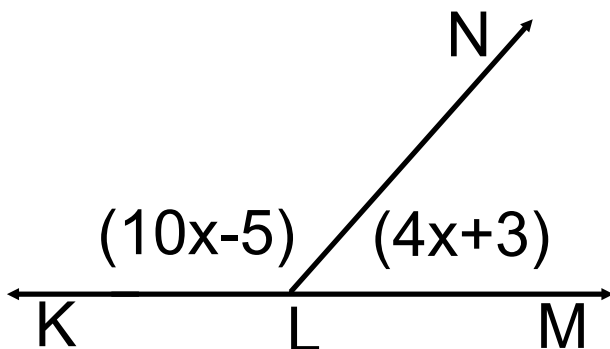


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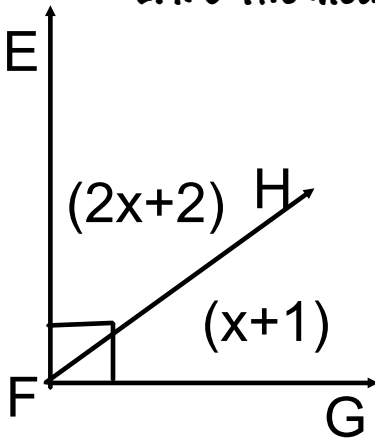
- 3) **Measure of angle LKN=145 degrees.** Find the measure of angle LKM & angle MKN.



- 4a) **Angle KLM is a straight angle.** Find the measure of angle KLN & the measure of angle NLM.

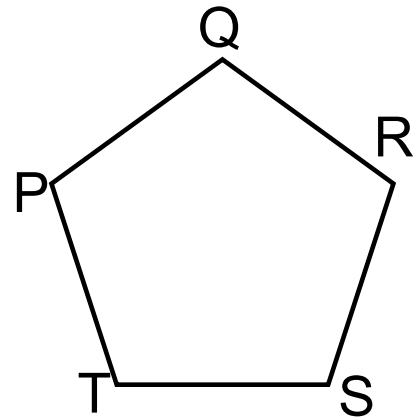


- 4b) **Angle EFG is a right angle.** Find the measure of angle EFH & the measure of angle HFG



- 5a) Identify all pairs of congruent angles.

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- b) **The measure of angle PQR=130 degrees, the measure of angle QRS=84 degrees, the measure of angle TSR=121 degrees.** Find the measure of angle QPT & angle PTS.

- 6) **Ray YW bisects angle XYZ, and the measure of angle XYW=18 degrees.** Find the measure of angle XYZ & angle WYZ.

