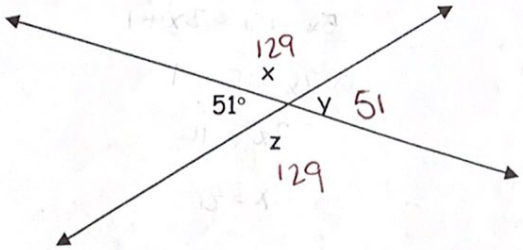
Day 3 Practice

Name Key

Vertical Angles & Linear Pairs

Examples:

1) Find x, y, and z



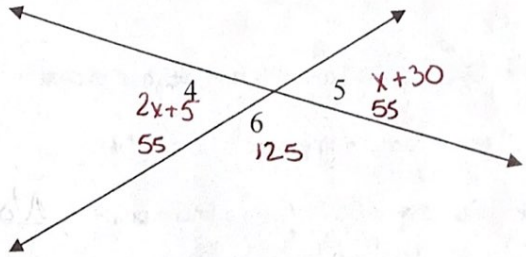
2) Given: m∠4 = (2x + 5)°
m∠5 = (x +30)°
Find: m∠6

$2x + 5 = x + 30$

$x + 5 = 30$

$x = 25$

$\angle 6 = 125$



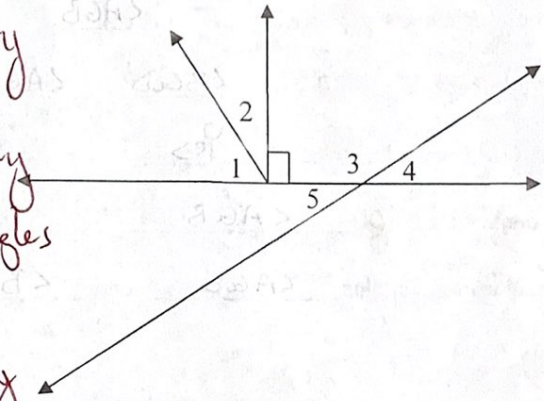
3) Identify each pair of angles as adjacent, vertical, complementary, supplementary, and/or linear pair.

a) ∠1 and ∠2 Complementary

b) ∠3 and ∠4 Linear Pair
Supplementary

c) ∠5 and ∠4 Vertical Angles

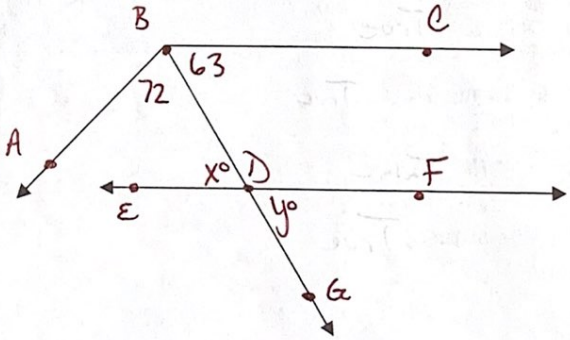
d) ∠3 and ∠5 Linear Pair
Supplementary



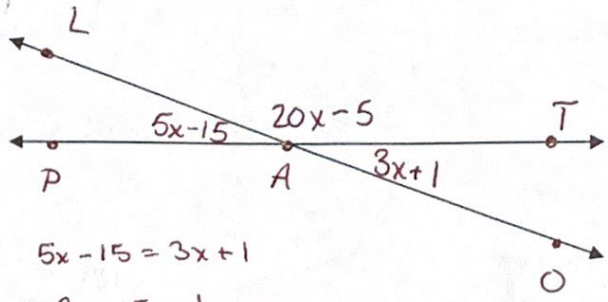
4) Find x and y if ∠CBD is congruent to ∠FDG.

$y = 63$

$x = 63$



5) Find each of the following:



a) x = 8

b) m∠LAT = 155

c) m∠TAO = 25

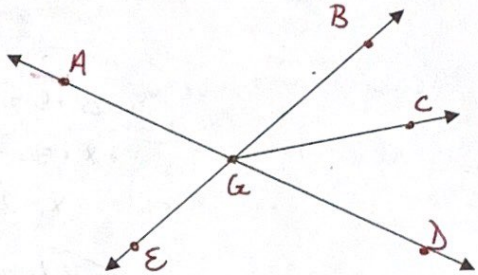
d) m∠PAO = 155

$5x - 15 = 3x + 1$

$2x - 15 = 1$

$2x = 16$

$x = 8$



In the figure, $\overrightarrow{GA}$ and $\overrightarrow{GD}$, and $\overrightarrow{GB}$ and $\overrightarrow{GE}$ are opposite rays.

6) Which angle forms a linear pair with $\angle DGC$? ∠AGC

7) Do $\angle BGC$ and $\angle EGD$ form a linear pair? No

8) Name two angles that are adjacent to $\angle CGD$. ∠CGB ∠EGD

9) Name two angles that form a linear pair with $\angle BGD$. ∠AGB ∠EGD

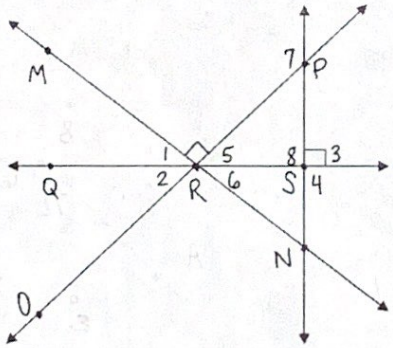
10) Name three angles adjacent to $\angle AGB$. ∠BGD ∠AGE ∠BGC

11) Do $\angle CGE$ and $\angle CGB$ form a linear pair? Yes

12) Name the vertical angle to $\angle EGD$. ∠AGB

13) Name another pair of vertical angles. ∠AGE and ∠BGD

14) *True or False?*



a. ∠PRN is acute. False

b. ∠4 ≅ ∠8 True

c. m∠5 + m∠6 = 90 True

d. $\overline{QR} \perp \overline{PR}$ False

e. ∠7 is obtuse True