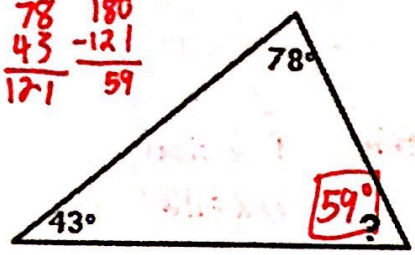
Name: KEY

Quiz Review: Angles

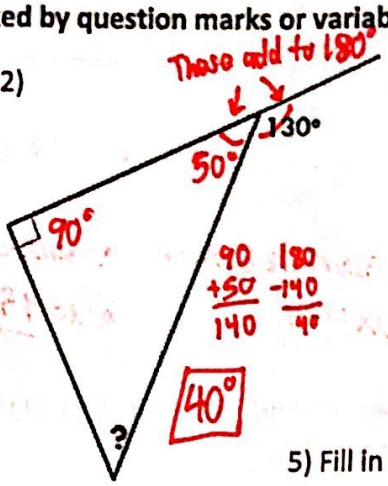
For 1 – 4, find the angle measures marked by question marks or variables. Show your work!

1)



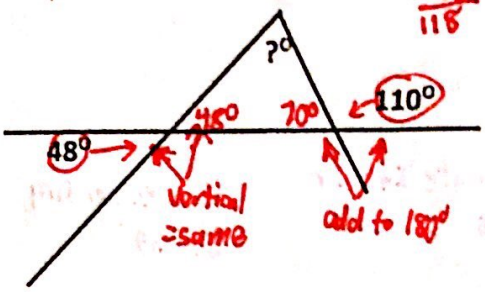
78 + 43 = 121 ; 180 − 121 = 59

2)



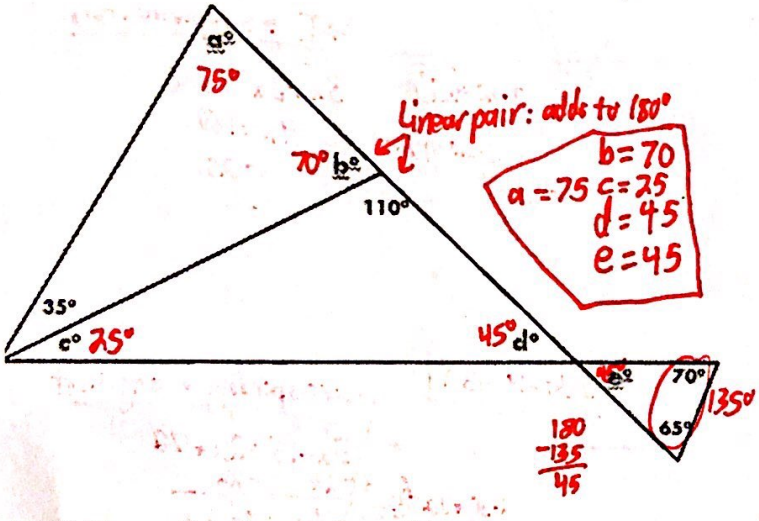
90 + 50 = 140 ; 180 − 140 = 40

3)

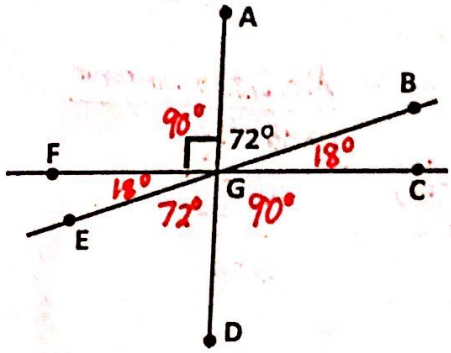


70 + 48 = 118 ; 180 − 118 = 62

4)



5) Fill in the missing angle measures.



For 6-12, use the diagram from #5.

6) $\angle AGE$ is:

A) Acute
B) Right
C) Obtuse (108°)
D) Straight

7) $\angle FGE$ and $\angle BGC$ are:

A) Vertical
B) Complementary
C) Supplementary
D) None of the above

8) $\angle AGB$ and $\angle BGC$ are:

A) Vertical
B) Complementary
C) Supplementary
D) None of the above

9) $\angle DGC$ and $\angle DGE$ are:

A) Vertical
B) Complementary
C) Supplementary
D) None of the above

10) $\angle DGE$ and $\angle DGB$ are:

A) Vertical
B) Complementary
C) Supplementary
D) None of the above

11) $\angle AGE$ and $\angle BGD$ are:

A) Vertical
B) Complementary
C) Supplementary
D) None of the above

12) $\angle FGE$ and $\angle AGB$ are: (18° and 72°)

A) Vertical
B) Complementary
C) Supplementary
D) None of the above

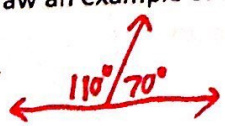
Since 18 + 72 = 90!

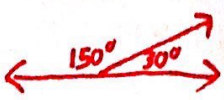
13) $\angle DGE$ and $\angle FGE$ are complementary. (or $\angle BGC$)

14) $\angle FGB$ and $\angle BGC$ are supplementary. (or $\angle FGG$)

15) $\angle AGB$ and $\angle EGD$ are vertical.

16) Draw an example of a linear pair and label both angles with a reasonable angle measure.

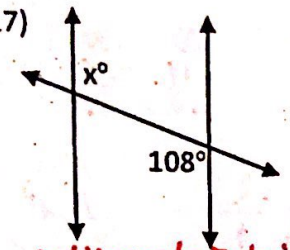




etc.

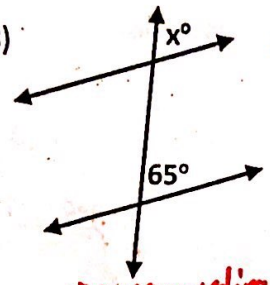
For 17-21, a) Identify which type of angle pair is marked, and b) Find the missing angle measure. You may assume the lines are parallel in each problem.

17)



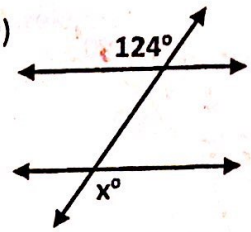
a) Alternate Interior
b) $x = 108$

18)



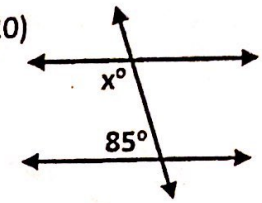
a) corresponding
b) $x = 65$

19)



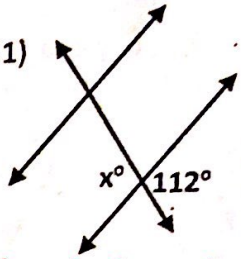
a) Alternate Exterior
b) $x = 124$

20)



a) Same-side Interior
b) $x = 95$

21)

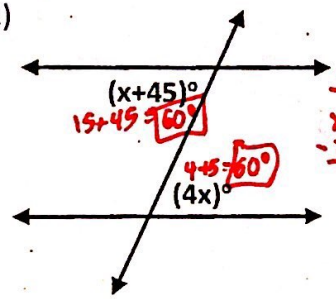


a) Vertical
b) $x = 112$

Algebra Section

For each problem, set up an equation and solve for the variable. Then plug the variable back in to find each angle measure. You may assume the lines are parallel in each problem.

22)



Alt. Int. → congruent

$x + 45 = 4x$

$-x \quad -x$

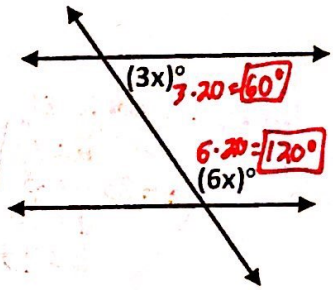
$\frac{45}{3} = \frac{3x}{3}$

$15 = x$

$15 + 45 = 60°$

$4 \cdot 15 = 60°$

23)



SSI → supplementary

$3x + 6x = 180$

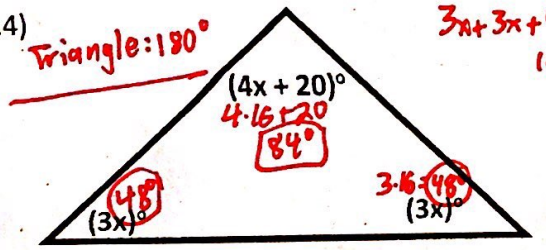
$9x = 180$

$x = 20$

$3 \cdot 20 = 60°$

$6 \cdot 20 = 120°$

24)



Triangle: 180°

$3x + 3x + 4x + 20 = 180$

$10x + 20 = 180$

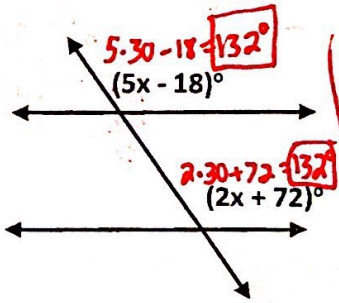
$10x = 160$

$x = 16$

$4 \cdot 16 + 20 = 84°$

$3 \cdot 16 = 48°$

25)



Corresponding → congruent

$5x - 18 = 2x + 72$

$-2x \quad -2x$

$3x - 18 = 72$

$+18 \quad +18$

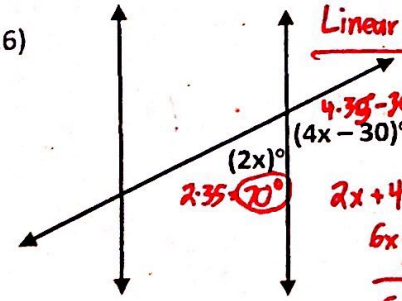
$3x = 90$

$x = 30$

$5 \cdot 30 - 18 = 132°$

$2 \cdot 30 + 72 = 132°$

26)



Linear Pair: supplementary

$2x + 4x - 30 = 180$

$6x - 30 = 180$

$+30 \quad +30$

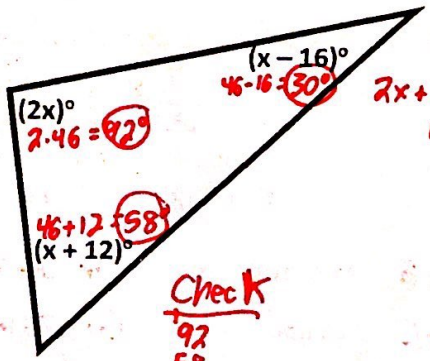
$\frac{6x}{6} = \frac{210}{6}$

$x = 35$

$4 \cdot 35 - 30 = 110°$

$2 \cdot 35 = 70°$

27)



Triangle: 180°

$2x + x - 16 + x + 12 = 180$

$4x - 4 = 180$

$+4 \quad +4$

$\frac{4x}{4} = \frac{184}{4}$

$x = 46$

$46 - 16 = 30°$

$2 \cdot 46 = 92°$

$46 + 12 = 58°$

Check

$92 + 58 + 30 = 180$ ✓

28) Now go to lischwe.weebly.com and find the answer key to this activity. **In a different color**, make corrections to the problems you got wrong. (Don't erase your original work.) Study them until you understand! Put a checkmark here after you have completely finished this step: _____