

Okay good, you're getting faster at it I bet. Let's do some matching. Write the letter of each picture in the blank next to its description in the left column.

G. 1. alternate interior angles "Z"

D. 2. corresponding angles "F"

I. 3. alternate exterior angles

E. 4. complementary angles

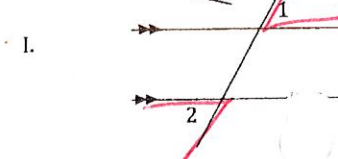
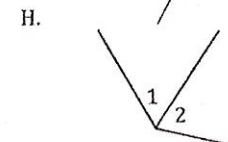
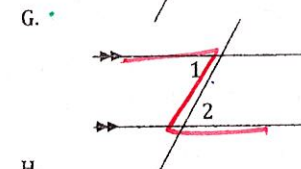
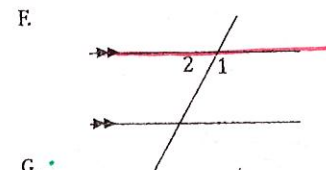
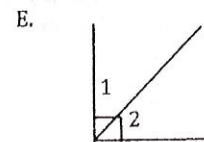
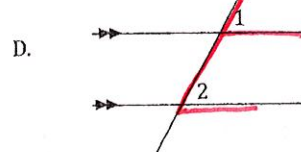
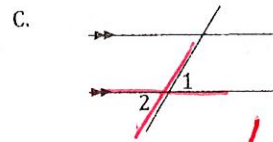
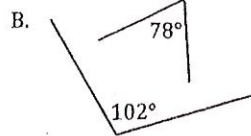
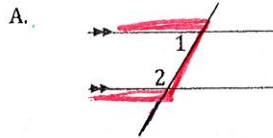
C. 5. vertical angles "X"

B. 6. supplementary angles

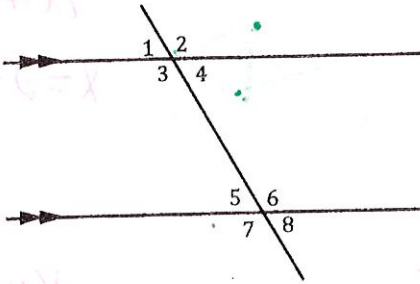
F. 7. linear pair - 2 angles that form a straight line

A. 8. consecutive angles (same side interior angles) "L"

H. 9. adjacent angles



or each, state the angle relationship.



1. Angle $\angle 1$ and $\angle 8$ are...

alternate exterior angles

2. Angle $\angle 3$ and $\angle 5$ are...

alt. interior

3. Angle $\angle 1$ and $\angle 5$ are...

corresponding

4. Angle $\angle 4$ and $\angle 8$ are...

corresponding

5. Angle $\angle 2$ and $\angle 6$ are...

corresponding

6. Angle $\angle 4$ and $\angle 5$ are...

alternate interior

7. Angle $\angle 2$ and $\angle 7$ are...

alt. exterior

8. Angle $\angle 3$ and $\angle 6$ are...

alt. interior

9. Angle $\angle 4$ and $\angle 6$ are...

same side interior

10. Angle $\angle 3$ and $\angle 7$ are...

corresponding

The next set might have some from other sections! You can do it!

11. Angle $\angle 7$ and $\angle 6$ are...

vertical angles

12. Angle $\angle 5$ and $\angle 7$ are...

linear pair

13. Angle $\angle 1$ and $\angle 4$ are...

vertical \angle 's

14. Angle $\angle 6$ and $\angle 3$ are...

alt. interior

15. Angle $\angle 5$ and $\angle 6$ are...

linear pair

16. Angle $\angle 7$ and $\angle 8$ are...

linear pair

17. Angle $\angle 7$ and $\angle 3$ are...

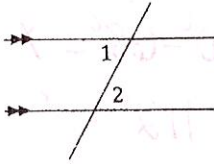
corresp.

18. Angle $\angle 5$ and $\angle 8$ are...

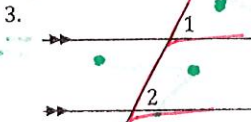
vertical.

Let's take it up a notch... for each, write the angle relationship you see in the picture and a statement of whether the angles are equal or add to 180° .

1. This one is done for you so you know what to do.



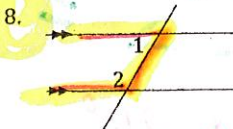
Alternate interior, $m\angle 1 = m\angle 2$



corresponding
 $\angle 1 = \angle 2$

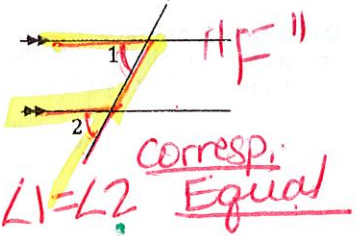


alt. exterior
 $\angle 1 = \angle 2$



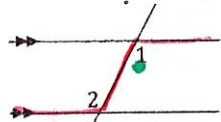
same side interior
 $\angle 1 + \angle 2 = 180^\circ$

- 2.



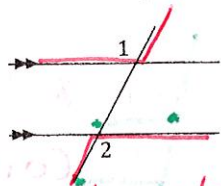
Corresp.
 $\angle 1 = \angle 2$ Equal

- 4.



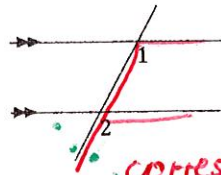
alt. interior
 $\angle 1 = \angle 2$

- 6.



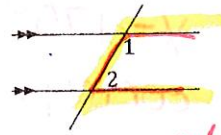
alt. exterior
 $\angle 1 = \angle 2$

- 7.



corresponding
 $\angle 1 = \angle 2$

- 9.

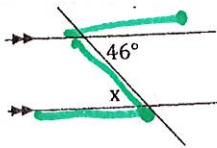


same side int.
 $\angle 1 + \angle 2 = 180^\circ$

Great job!!

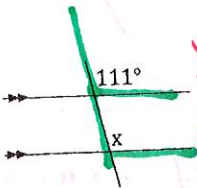
On these state the angle relationship, write a statement about whether they add to 180° or are equal, and solve for x if necessary.

1. This one is done for you so you know what to do.



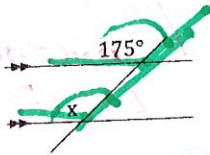
$x = 46^\circ$
alt. interior

3.



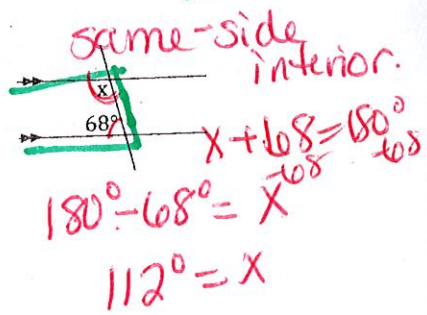
$x = 111^\circ$
Corresp.

6.

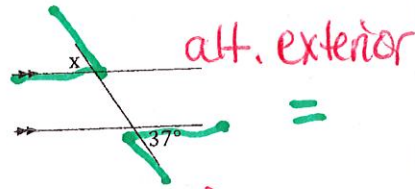


$x = 175^\circ$
corresp.

2.

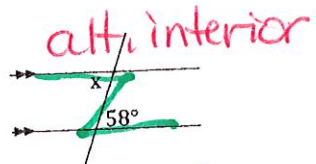


4.



$x = 37^\circ$

5.



$x = 58^\circ$

7.

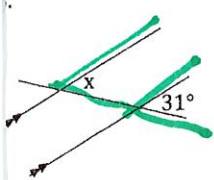


$x = 26^\circ$

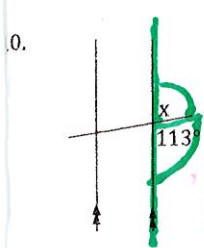
Bubble all the correct answers from above. Don't bubble incorrect answers.

- 37° 143° 9° 46° 175° 122° 58° 68° 154° 26° 64° 112° 75°

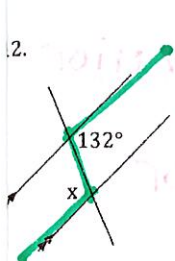
Don't worry about these, they are just rotated.



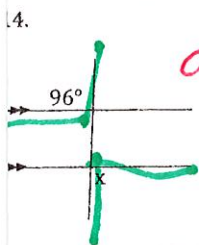
corresponding
 $x = 31^\circ$



$180^\circ - 113^\circ =$
 $x = 67^\circ$
Linear pair

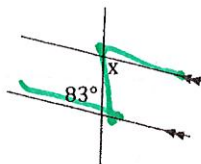


alt. int.
 $x = 132^\circ$



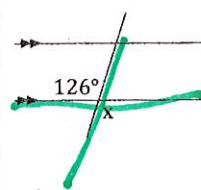
alt. exterior
 $x = 96^\circ$

9.



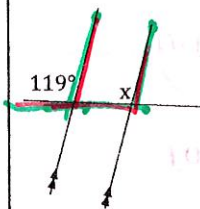
alt. interior.
 $x = 83^\circ$

11.



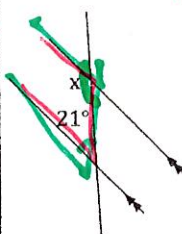
Verticals
 $x = 126$

13.



corresponding
 $x = 119$

15.



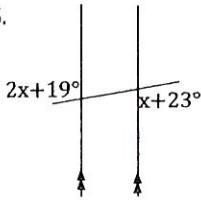
Same-side interior
 $180^\circ - 21 = x$
 $159^\circ = x$

Bubble all the correct answers from above. Don't bubble incorrect answers.

11° 132° 54° 96° 159° 122° 83° 119° 154° 113° 67° 52° 58°

On these state the angle relationship, write a statement about whether they add to 180° or are equal, and find the value of x .

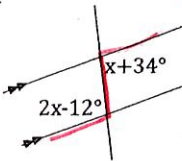
16.



Alternate exterior

$$\begin{aligned} 2x+19^\circ &= x+23^\circ \\ -x & \quad -x \\ x+19^\circ &= 23^\circ \\ -19^\circ & -19^\circ \\ x &= 4^\circ \end{aligned}$$

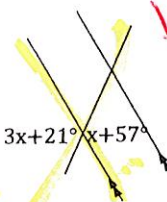
18.



alt. interior

$$\begin{aligned} x+34 &= 2x-12 \\ -x & +12 \quad -x \quad +12 \\ 46 &= x \end{aligned}$$

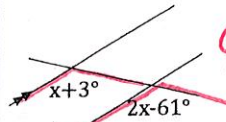
20.



vertical \angle 's

$$\begin{aligned} 3x+21 &= x+57 \\ -x & -21 \quad -x \quad -21 \\ 2x &= 36 \\ x &= 18 \end{aligned}$$

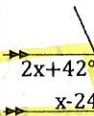
17.



Corresp.

$$\begin{aligned} x+3 &= 2x-61 \\ -x & +64 \quad -x \quad +61 \\ 64 &= x \end{aligned}$$

19.



same-side int.
 $2x+42+x-24=180$

$$\begin{aligned} 3x+18 &= 180 \\ -18 & \quad -18 \\ 3x &= 162 \\ x &= 54 \end{aligned}$$

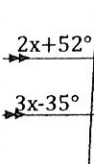
21.



Linear pair

$$\begin{aligned} x+23+x+61 &= 180 \\ 2x+84 &= 180 \\ -84 & \quad -84 \\ 2x &= 96 \\ x &= 48 \end{aligned}$$

22.



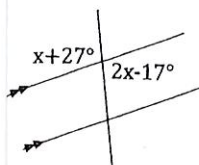
Correspond.

$$\begin{aligned} 2x+52 &= 3x-35 \\ -2x+35 & -2x+35 \\ 87 &= x \end{aligned}$$

Bubble all the correct answers from above. Don't bubble incorrect answers.

- 72° 4° 2° 46° 18° 64° 54° 42° 30° 48° 97° 28° 87° C

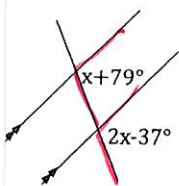
23.



vertical

$$\begin{array}{r} x+27 = 2x-17 \\ -x \quad +17 \quad -x \quad +17 \\ \hline 44 = x \end{array}$$

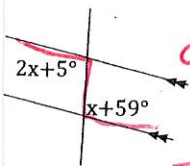
5.



corresponding

$$\begin{array}{r} x+79 = 2x-37 \\ -x \quad -79 \quad -x \quad -79 \\ \hline 116 = x \end{array}$$

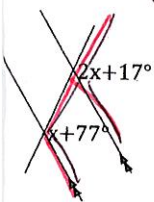
7.



alt. interior

$$\begin{array}{r} 2x+5 = x+59 \\ -x \quad -5 \quad -x \quad -5 \\ \hline x = 54 \end{array}$$

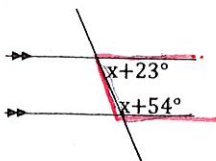
9.



corresponding =

$$\begin{array}{r} 2x+17 = x+77 \\ -x \quad -17 \quad -x \quad -17 \\ \hline x = 60 \end{array}$$

24.



same-side interior

$$x+23 + x+54 = 180$$

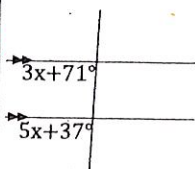
combine

$$2x + 77 = 180$$

$$2x = 103$$

$$x = 51.5$$

26.



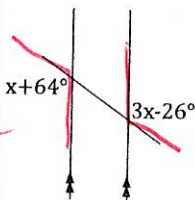
corresponding

$$\begin{array}{r} 3x+71 = 5x+37 \\ -3x \quad -71 \quad -3x \quad -71 \\ \hline -34 = 2x \end{array}$$

$$34 = 2x$$

$$17 = x$$

28.



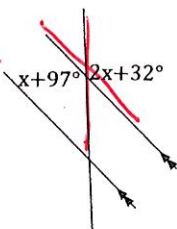
Alt. exterior =

$$\begin{array}{r} x+64 = 3x-26 \\ -x \quad -64 \quad -x \quad -64 \\ \hline 90 = 2x \end{array}$$

$$90 = 2x$$

$$45 = x$$

30.



vertical =

$$\begin{array}{r} x+97 = 2x+32 \\ -x \quad -97 \quad -x \quad -97 \\ \hline 65 = x \end{array}$$

$$65 = x$$

bubble all the correct answers from above. Don't bubble incorrect answers.

1° 116° 20° 17° 54° 98° 51.5° 45° 60° 72.5° 65° 44° 30.5°