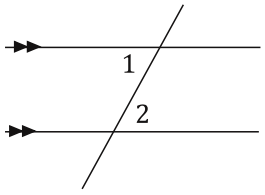
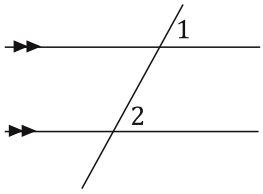
Let's take it up a notch... for each, write the angle relationship you see in the picture and a statement of whether the angles are equal or add to 180°.

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

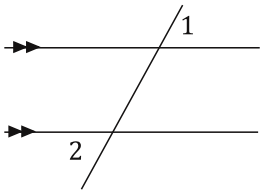


Alternate interior, m∠1=m∠2

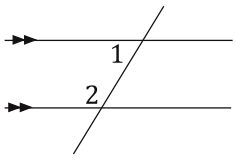
3.



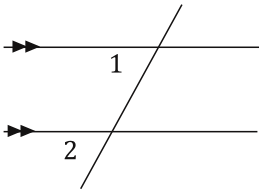
5.



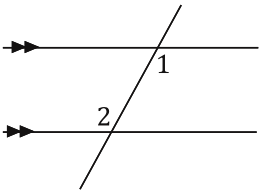
8.



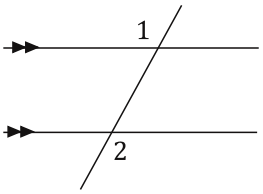
2.



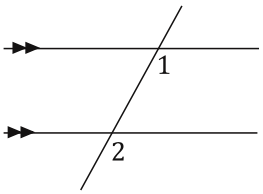
4.



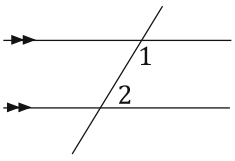
6.



7.



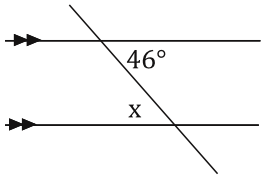
9.



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.

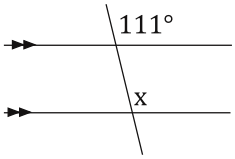
1. This one is done for you so you know what to do.



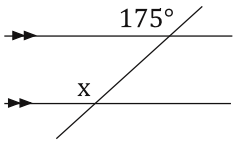
Alternate interior

46°=x

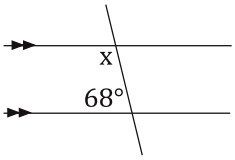
3.



6.



2.



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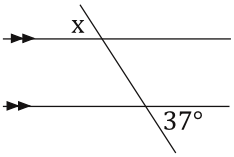
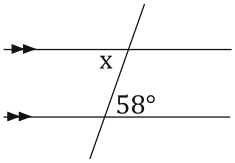
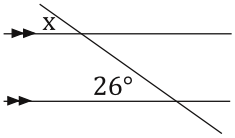


5.



7.

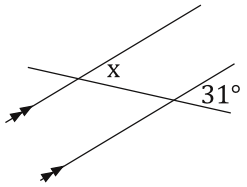


Bubble all the correct answers from above. Don't bubble incorrect answers.

○37° ○143° ○69° ●46° ○175° ○122° ○58° ○68° ○154° ○26° ○64° ○112° ○75° ○111°

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

8.



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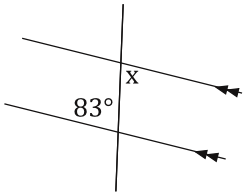

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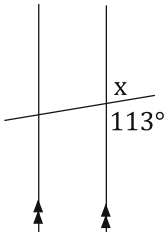
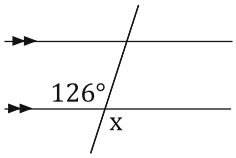


11.



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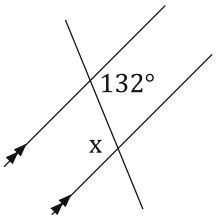

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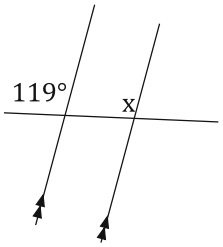

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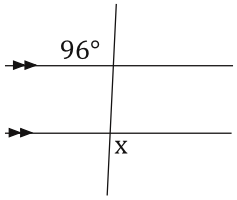
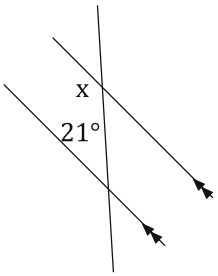


15.

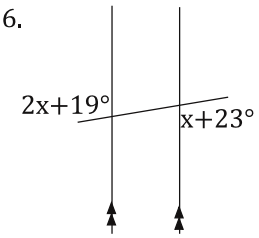


Bubble all the correct answers from above. Don't bubble incorrect answers.

◯31° ◯132° ◯54° ◯96° ◯159° ◯122° ◯83° ◯119° ◯154° ◯113° ◯67° ◯52° ◯58° ◯126°

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

$2x+19°=x+23°$

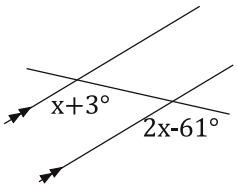
$-x \quad -x$

$x+19°=23°$

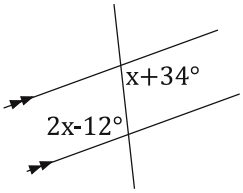
$-19°-19°$

$x=4°$

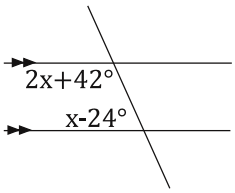
17.



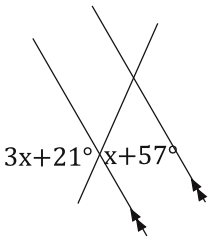
18.



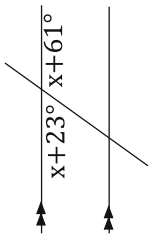
19.



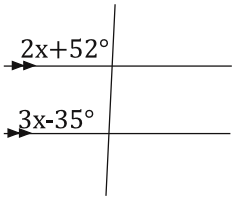
20.



21.



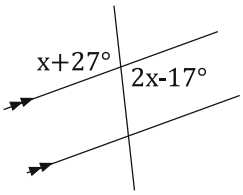
22.



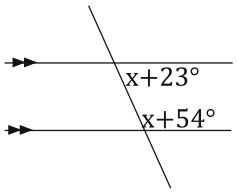
Bubble all the correct answers from above. Don't bubble incorrect answers.

○72° ●4° ○12° ○46° ○18° ○64° ○154° ○42° ○30° ○48° ○97° ○28° ○87° ○83°

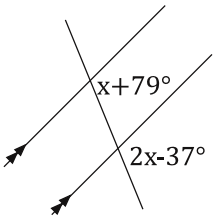
23.



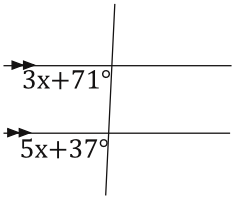
24.



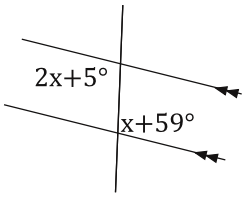
25.



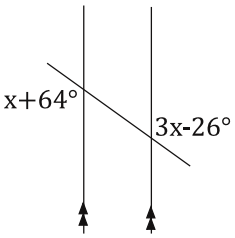
26.



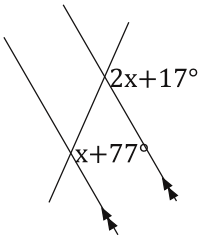
27.



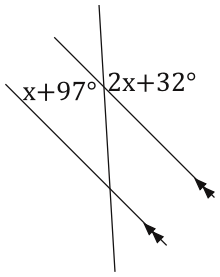
28.



29.



30.

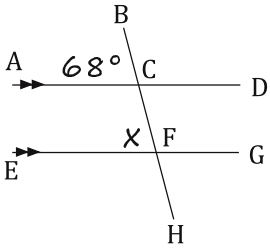


Bubble all the correct answers from above. Don't bubble incorrect answers.

◯31° ◯116° ◯20° ◯17° ◯54° ◯98° ◯51.5° ◯45° ◯60° ◯72.5° ◯65° ◯44° ◯30.5° ◯24°

Mark the diagram with the given information, state the angle relationship, and then solve for the indicated angle.

31. m∠ACB is 68° Find the m∠EFC.

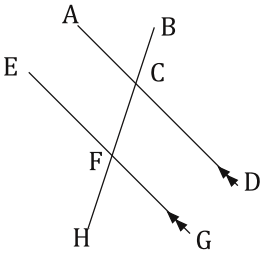


Corresponding

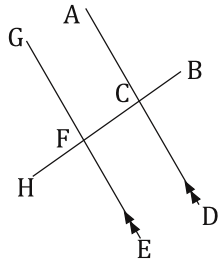
m∠ACB=m∠EFC

68°=m∠EFC

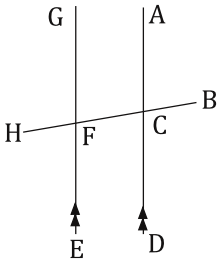
32. m∠DCH=85° Find m∠BFE.



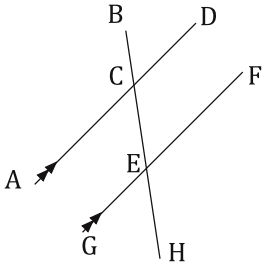
33. m∠EFB=91° Find m∠DCH.



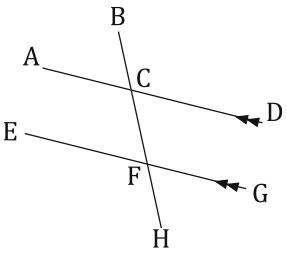
34. m∠HFG=103° Find m∠BCD.



35. m∠GEH=47° Find m∠BEF.



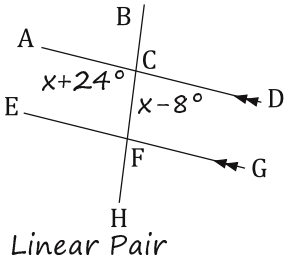
36. m∠DCH=63° Find m∠ACH.



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

○112° ○95° ○91° ○89° ○47° ○103° ○63° ○68° ○77° ○85°

37. m∠ACH=X+24°, m∠DCH=X-8°. Find m∠ACH.



$\frac{2x}{2}=\frac{164°}{2}$

$x=82°$

$m\angle ACH=x+24°$

$m\angle ACH=82+24°$

$m\angle ACH=106°$

Linear Pair

$m\angle ACH+m\angle DCH=180°$

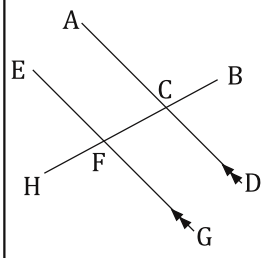
$(x+24°)+(x-8°)=180°$

$x+24°+x-8°=180$

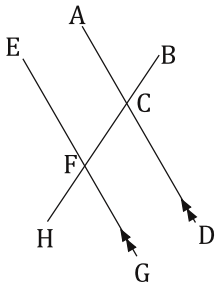
$2x+16°=180°$

$-16° \quad -16°$

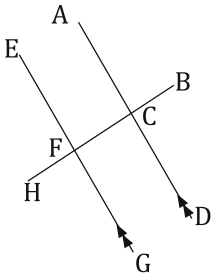
38. m∠ACB=2X-45°, m∠HFG=X+23°. Find m∠HFG.



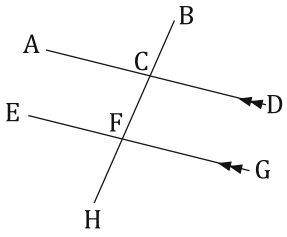
39. m∠EFH=2X-142°, m∠ACH=X+16°. Find m∠ACH.



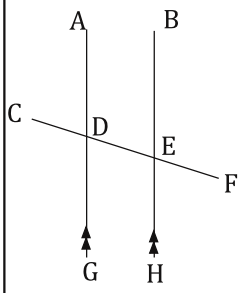
40. m∠GFB=x+32°, m∠DCH=X+24°. Find m∠DCH.



41. m∠BCD=X+26°, m∠BFG=2X-24°. Find m∠BFG.



42. m∠ADF=2X+4°, m∠HEC=4X-14°. Find m∠HEC.



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

○ 76° ○ 110° ○ 91° ○ 94° ○ 106° ○ 97° ○ 22° ○ 165° ○ 86° ○ 92°