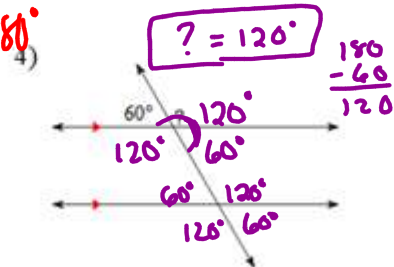
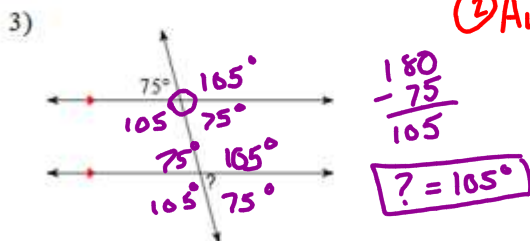
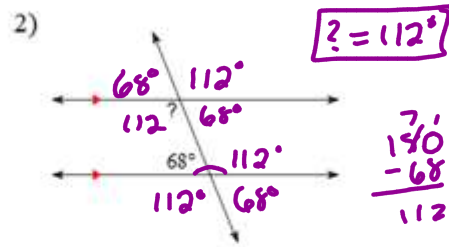
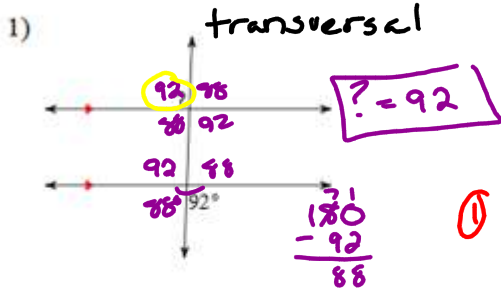


# Finding the angle measure given two parallel lines cut by a transversal

Find the measure of each angle indicated.

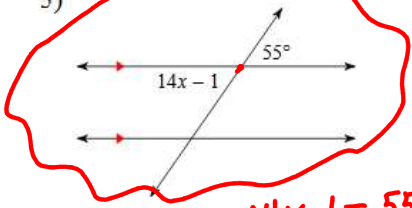


① Equal  
or  
② Add to 180°

Solve for x.

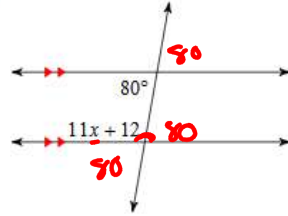
- ① Equal
- ② Add to 180

5)



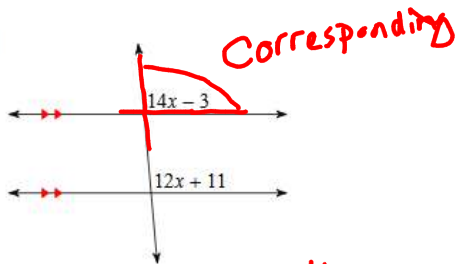
$$\begin{aligned} 14x - 1 &= 55 \\ +1 &+1 \\ \hline 14x &= 56 \\ \frac{14x}{14} &= \frac{56}{14} \\ \boxed{x=4} \end{aligned}$$

6)



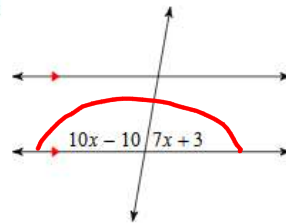
$$\begin{aligned} 11x + 12 + 80 &= 180 \\ 11x + 92 &= 180 \\ -92 &-92 \\ \hline 11x &= 88 \\ \frac{11x}{11} &= \frac{88}{11} \\ \boxed{x=8} \end{aligned}$$

7)



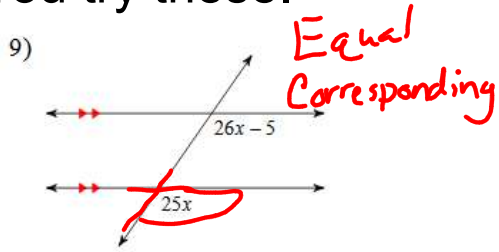
$$\begin{aligned} 14x - 3 &= 12x + 11 \\ -12x &-12x \\ \hline 2x - 3 &= 11 \\ +3 &+3 \\ \hline 2x &= 14 \\ \frac{2x}{2} &= \frac{14}{2} \\ \boxed{x=7} \end{aligned}$$

8)

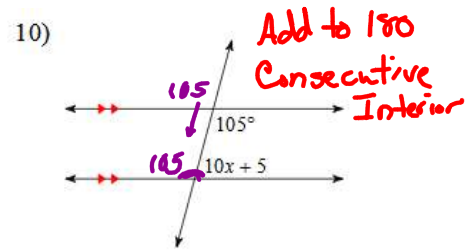


$$\begin{aligned} 10x - 10 + 7x + 3 &= 180 \\ 17x - 7 &= 180 \\ +7 &+7 \\ \hline 17x &= 187 \\ \frac{17x}{17} &= \frac{187}{17} \\ \boxed{x=11} \end{aligned}$$

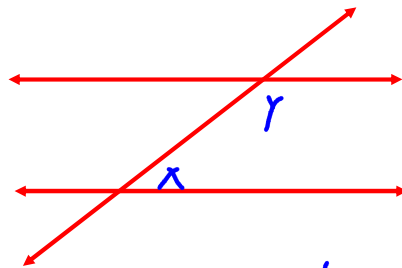
You try these.



$$\begin{aligned} 26x - 5 &= 25x \\ -26x &\quad -26x \\ \hline -5 &= -1x \\ \frac{-5}{-1} &= \frac{-1x}{-1} \\ \boxed{5} &= x \end{aligned}$$



$$\begin{aligned} 105 + 10x + 5 &= 180 \\ 10x + 110 &= 180 \\ -110 &\quad -110 \\ \hline 10x &= 70 \\ \frac{10x}{10} &= \frac{70}{10} \\ \boxed{x=7} \end{aligned}$$



- ① Equal  
or  
② Add to 180°

Independent Practice - Do the practice questions on the worksheet. Check your answers.

*Start with odds*