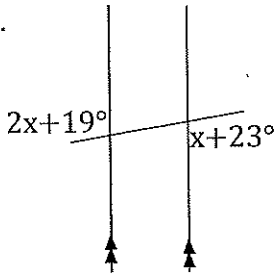


On these state the angle relationship, write a statement about whether they add to 180° or are equal, and find the value of x .

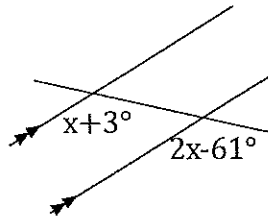
16.



Alternate exterior

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

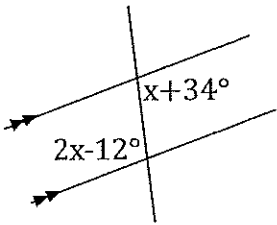
17.



CORRESPONDING

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

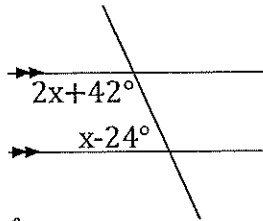
18.



ALTERNATE INTERIOR

$$\begin{aligned} x+34 &= 2x-12 \\ 246 &= x \end{aligned}$$

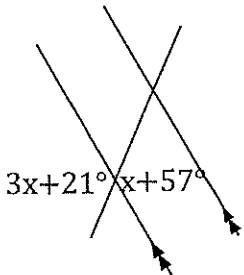
19.



CONSECUTIVE INTERIOR

$$\begin{aligned} 2x+42 + x-24 &= 180 \\ 3x+18 &= 180 \\ -18 & -18 \\ 3x &= 162 \\ \frac{3x}{3} &= \frac{162}{3} \\ x &= 54 \end{aligned}$$

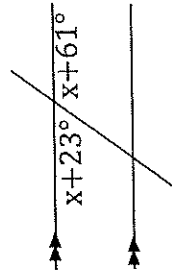
20.



VERTICAL

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

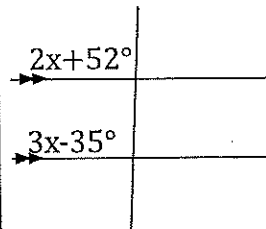
21.



LINEAR PAIR

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

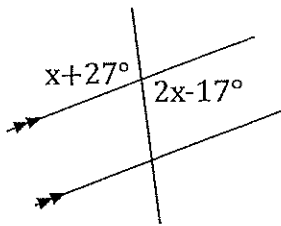
22.



CORRESPONDING

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

23.

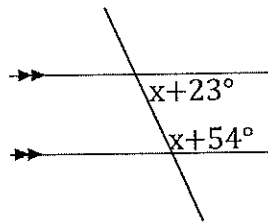


VERTICAL

$$x+27 = 2x-17$$

$$44 = x$$

24.



CONSECUTIVE INTERIOR

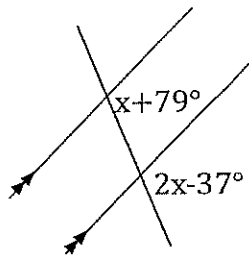
$$x+23 + x+54 = 180$$

$$2x + 77 = 180$$

$$2x = 103$$

$$x = 51.5$$

25.

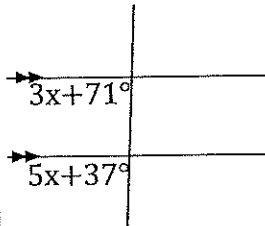


CORRESPONDING

$$x+79 = 2x-37$$

$$116 = x$$

26.



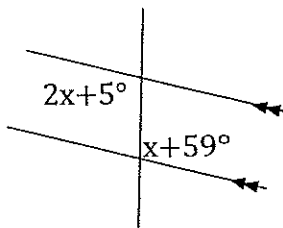
CORRESPONDING

$$3x+71 = 5x+37$$

$$34 = 2x$$

$$17 = x$$

27.

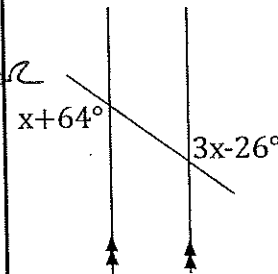


ALTERNATE INTERIOR

$$2x+5 = x+59$$

$$x = 54$$

28.



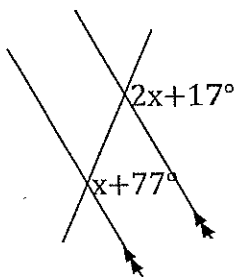
ALTERNATE EXTERIOR

$$3x-26 = x+64$$

$$2x = 90$$

$$x = 45$$

29.

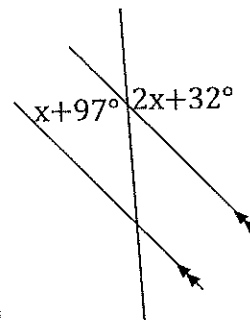


CORRESPONDING

$$2x+17 = x+77$$

$$x = 60$$

30.



VERTICAL

$$x+97 = 2x+32$$

$$65 = x$$