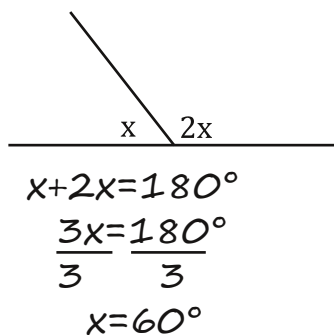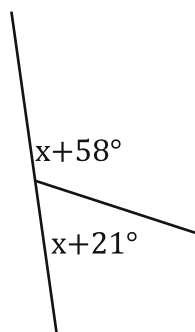For each find the value of the variable. Show all work.
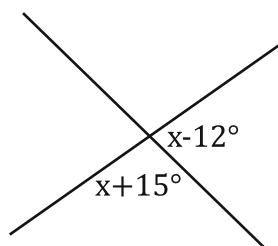
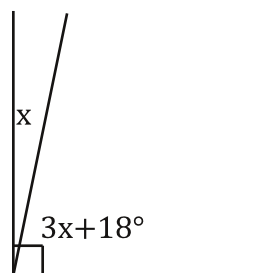**20.**

$$x + 2x = 180°$$
$$\underline{3x} = \underline{180°}$$
$$33$$
$$x = 60°$$

21.

x

3x+18°

22.

x+58°

x+21°

23.

2x+8°

x-24°

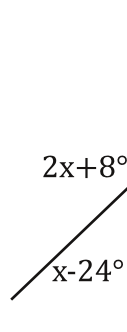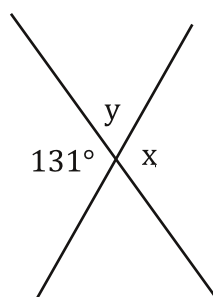**24.**

x-12°

x+15°

25. Find y, then find x...

y

131°   x

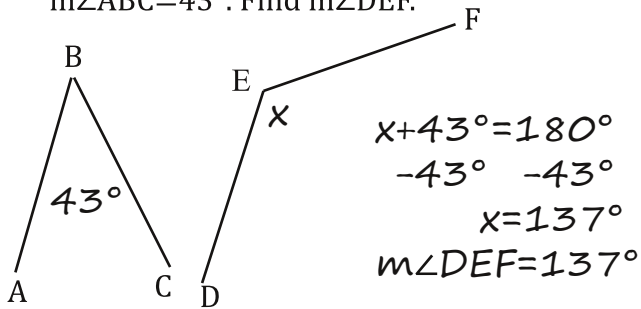**26.** What do you notice about the value of x in #25?

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

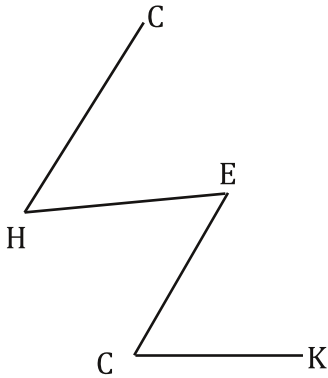○40.5°   ○ 60°   ○ 50.5°   ○ 18°   ○ 65.3°   ○ 88.5°   ○ 49°   ○ 49.3°   ○ 131°   ○ 76.5°

Find the indicated angle measure. If the problem contains a linear pair, write "linear pair" as well.
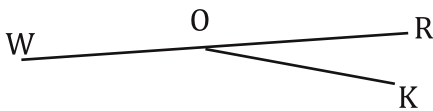
27. ∠ABC is supplementary to ∠DEF
    m∠ABC=43°. Find m∠DEF.

B
E
F
x
43°
A
C
D

$x+43°=180°$
$-43° \quad -43°$
$x=137°$
m∠DEF=137°

28. m∠QRT=143°. Find m∠TSR.

T
Q   R   S

29. ∠H is complementary to ∠C m∠C=59°. Find m∠H.

C
E
H
C   K

30. ∠O is supplementary to ∠U, m∠U=78°. Find m∠O.

Y
O
R
U

31. m∠WOK is 27 more than three times m∠ROK. Find m∠ROK.

O   R
W
K
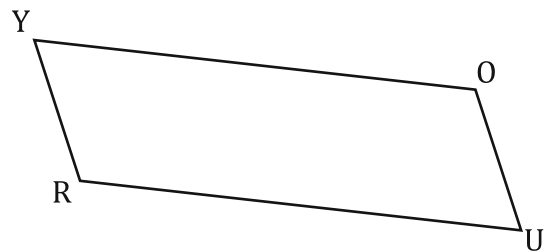
32. m∠XYZ is 11 more than two times m∠WYX. Find m∠XYZ.

X
W   Z
Y
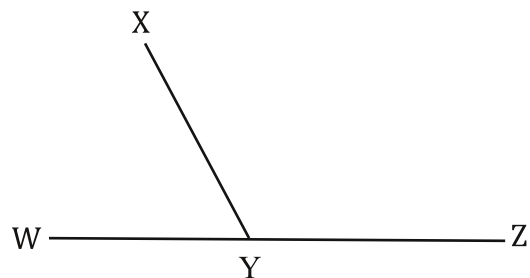
33. Secret Message: _____

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

◯47°   ◯121°   ◯76.5°   ◯153°   ◯56.3°   ◯84.5°   ◯31 °   ◯137°   ◯37°   ◯102°