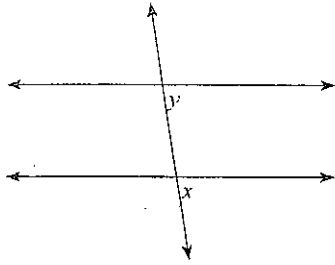


Unit 2 Quiz Review

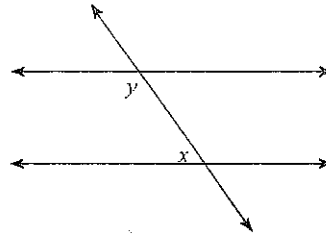
Identify each pair of angles as corresponding, alternate interior, alternate exterior, same-side interior, same-side exterior, vertical, or linear pair.

1)



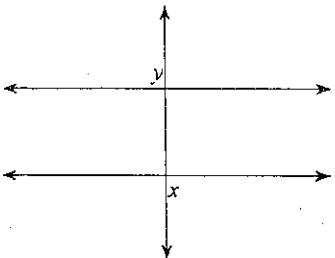
Corresponding

2)



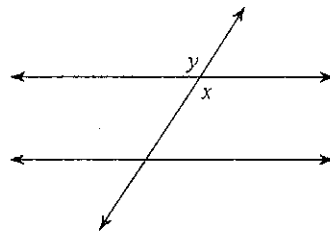
Same-side interior

3)



Alt. Exterior

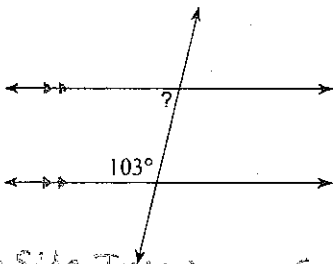
4)



Vertical

Find the measure of each angle indicated.

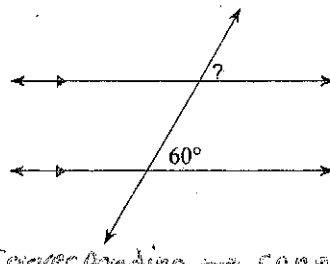
5)



Same Side Interior  $\rightarrow$  supplementary

$$\begin{array}{r} x + 103 = 180 \\ -103 \quad -103 \\ \hline x = 77^\circ \end{array}$$

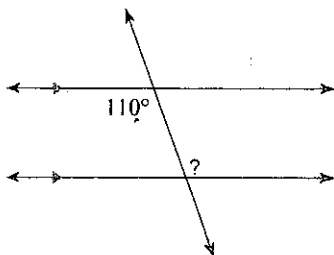
6)



Corresponding  $\rightarrow$  congruent

$x = 60^\circ$

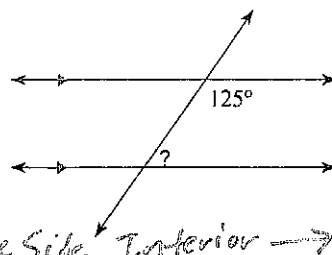
7)



Alternate Interior  $\rightarrow$  congruent

$x = 110^\circ$

8)

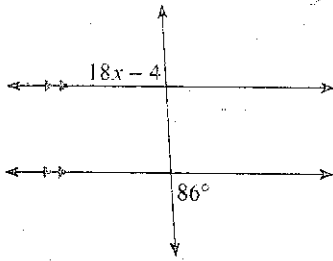


Same Side Interior  $\rightarrow$  supplementary

$$\begin{array}{r} x + 125 = 180 \\ -125 \quad -125 \\ \hline x = 55 \end{array}$$

Solve for x.

9)

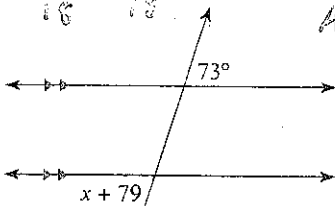


$$18x - 4 = 86$$

$$18x = 90$$

$$x = 5$$

11)

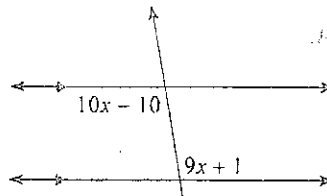


$$x + 79 = 73$$

$$x = -6$$

Alt. Ext. → Congruent

10)



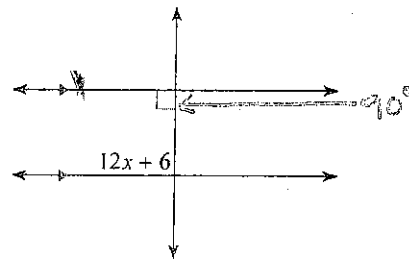
$$10x - 10 = 9x + 1$$

$$10x = 9x + 11$$

$$x = 11$$

Alternate Interior → Congruent

12)



$$12x + 6 + 90 = 180$$

$$12x + 96 = 180$$

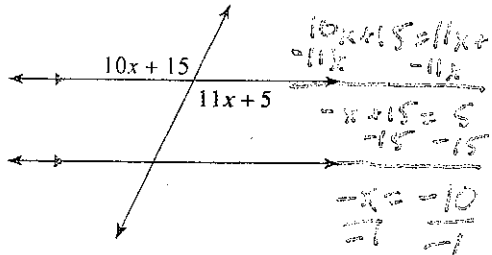
$$12x = 84$$

$$x = 7$$

Same-side Interior → supplementary

Find the measure of the angle indicated in bold.

13)



$$10x + 15 = 11x + 5$$

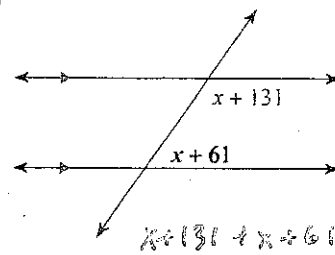
$$-x + 15 = 5$$

$$-x = -10$$

$$x = 10$$

$x = 10$  plug in!

14)



$$x + 131 + x + 61 = 180$$

$$2x + 192 = 180$$

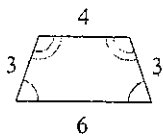
$$2x = -12$$

$$x = -6$$

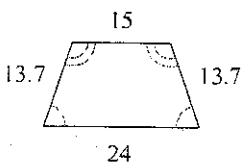
Same-side Int. → supplementary

State if the polygons are similar.

15)



Must have congruent angles and proportional sides:



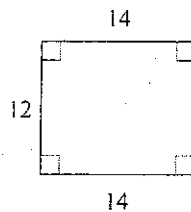
$$\frac{4}{15} = \frac{3}{13.7}$$

$$\frac{6}{24} = \frac{3}{8}$$

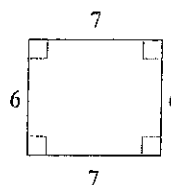
$$\frac{13.7}{2} = \frac{13.7}{2}$$

No, Not similar

16)



$$\frac{12}{6} = 2$$

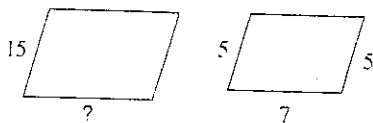


$$\frac{14}{7} = 2$$

similar

The polygons in each pair are similar. Find the missing side length.

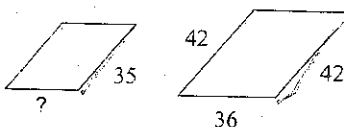
17)



$$\frac{15}{5} = \frac{x}{7} \rightarrow \frac{5x}{5} = \frac{105}{5}$$

$$x = 21$$

18)

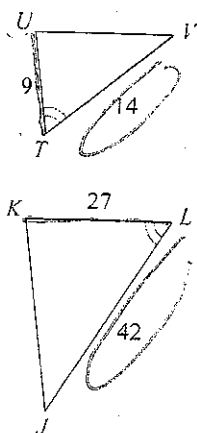


$$\frac{35}{42} = \frac{x}{36} \rightarrow \frac{42x}{42} = \frac{1260}{42}$$

$$x = 30$$

State if the triangles in each pair are similar. If so, state how you know they are similar (SSS, SAS, or AA) and complete the similarity statement.

19)



Circle One:

SSS ~

SAS ~

AA ~

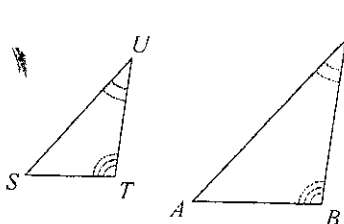
Not Similar

$$\frac{9}{27} = \frac{1}{3}$$

$$\frac{14}{42} = \frac{1}{3}$$

$\triangle LKJ \sim \triangle TUV$

20)



Circle One

SSS ~

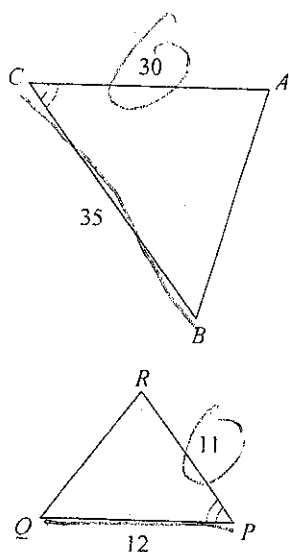
SAS ~

AA ~

Not Similar

$\triangle CBA \sim \triangle UST$

21)



Circle One

SSS ~

SAS ~

AA ~

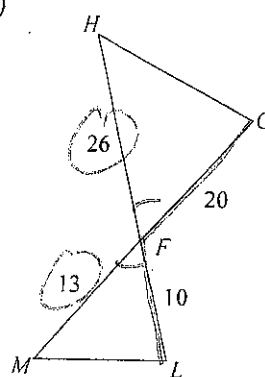
Not Similar

$\triangle CBA \sim \dots$

$$\frac{35}{12} = \frac{35}{12}$$

$$\frac{30}{11} = \frac{30}{11}$$

22)



Circle One

SSS ~

SAS ~

AA ~

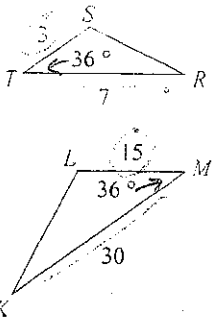
Not Similar

$\triangle FGH \sim \triangle FLM$

$$\frac{26}{13} = 2$$

$$\frac{20}{10} = 2$$

23)



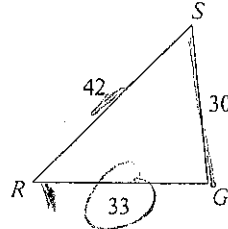
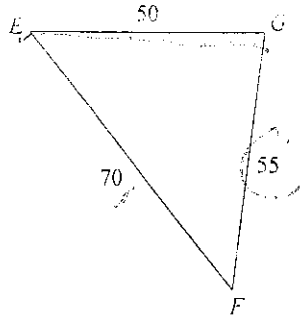
$\triangle MLK \sim$  \_\_\_\_\_

Circle One

SSS  $\sim$   
 SAS  $\sim$   
 AA  $\sim$   
Not Similar

$\frac{3}{15} = \frac{1}{5}$   
 $\frac{7}{30} = \frac{7}{30}$  K

24)



$\triangle GFE \sim \triangle RGS$

Circle One

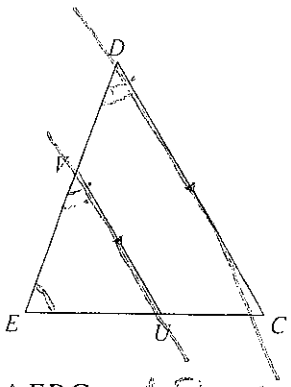
SSS  $\sim$   
 SAS  $\sim$   
 AA  $\sim$   
 Not Similar

$\frac{50}{30} = \frac{5}{3} \checkmark$

$\frac{55}{33} = \frac{5}{3} \checkmark$

$\frac{70}{42} = \frac{5}{3} \checkmark$

25)



$\triangle EDC \sim \triangle EVU$

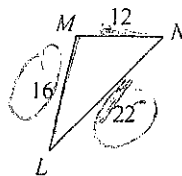
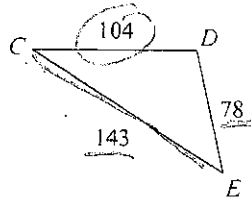
Circle One

SSS  $\sim$   
 SAS  $\sim$   
AA  $\sim$   
 Not Similar

$\therefore \overline{UV} \parallel \overline{DE}$

included angle &  
 corresponding angles

26)



$\triangle CDE \sim \triangle LMN$

Circle One

SSS  $\sim$   
 SAS  $\sim$   
 AA  $\sim$   
 Not Similar

$\frac{78}{12} = \frac{13}{2} \checkmark$

$\frac{104}{16} = \frac{13}{2} \checkmark$

$\frac{143}{22} = \frac{13}{2} \checkmark$