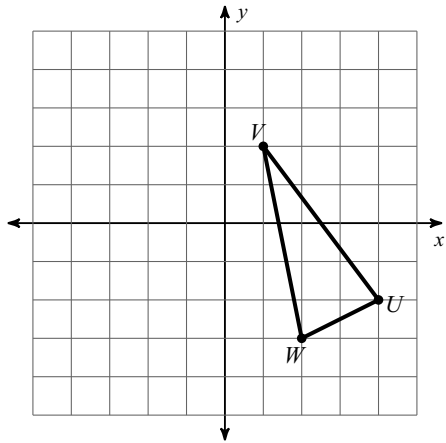


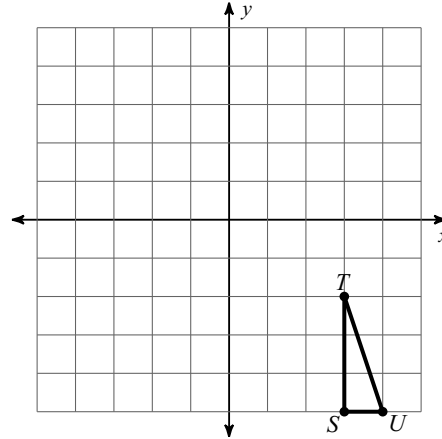
Midterm Exam Study Guide

Find the coordinates of the vertices of each figure after the given transformation.

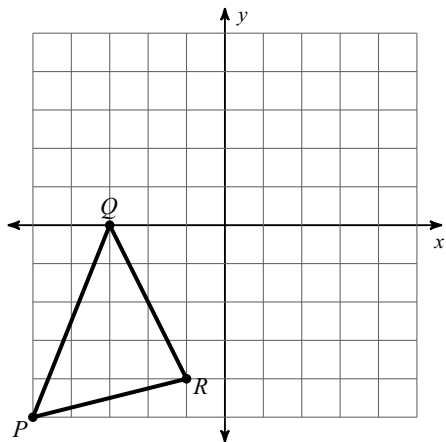
1) translation: 5 units left and 3 units up



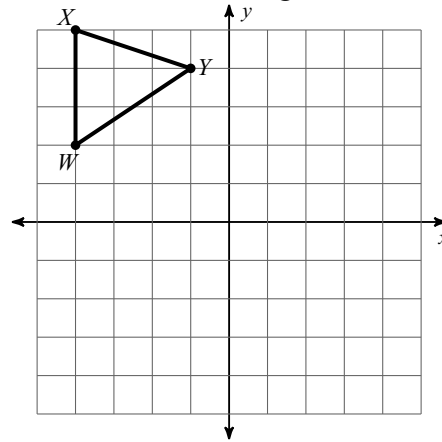
2) rotation  $90^\circ$  counterclockwise about the origin



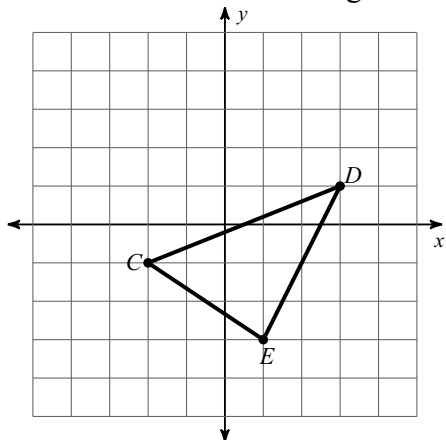
3) reflection across  $x = -3$



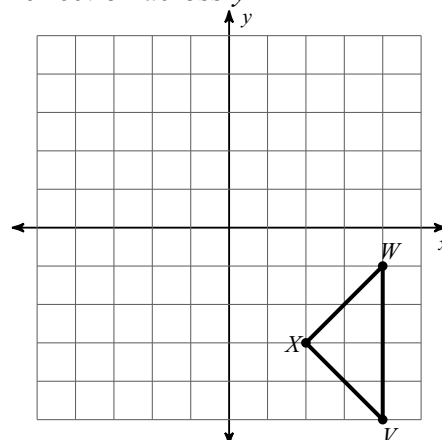
4) translation: 3 units right and 6 units down



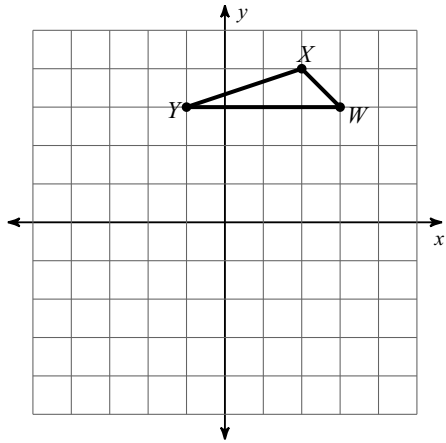
5) rotation  $180^\circ$  about the origin



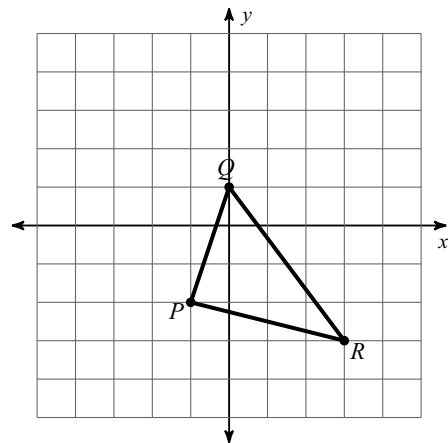
6) reflection across  $y = -2$



7) rotation  $90^\circ$  clockwise about the origin

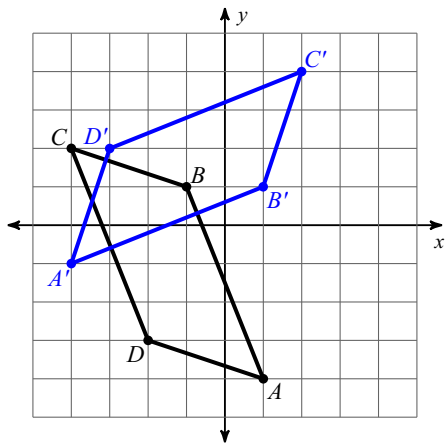


8) reflection across  $x = -1$

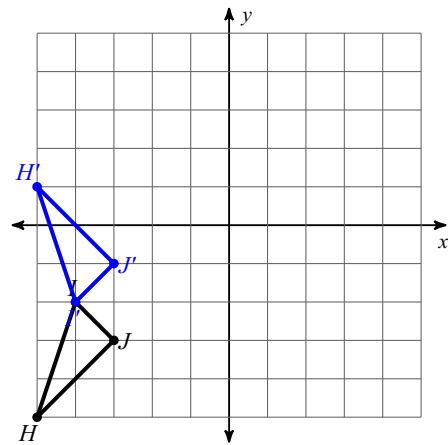


Write a rule to describe each transformation.

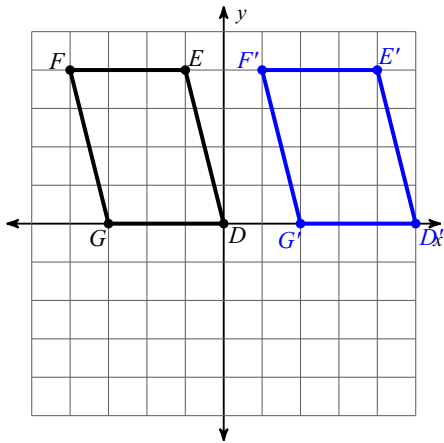
9)



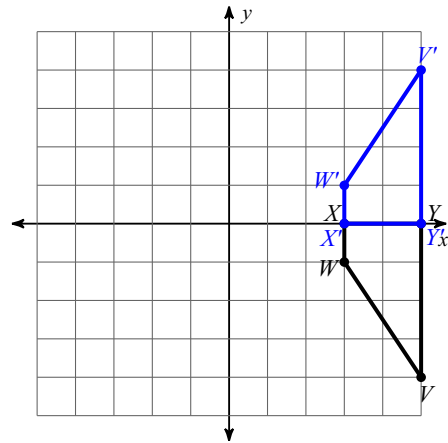
10)



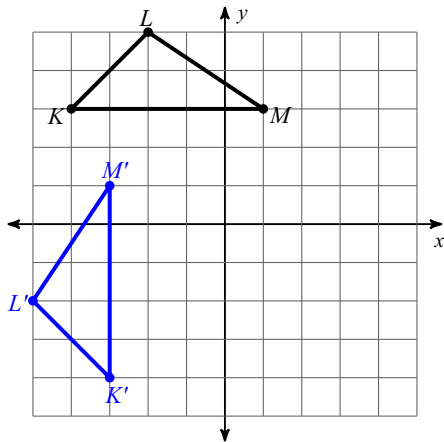
11)



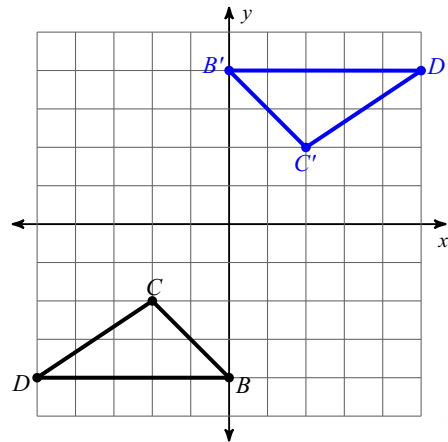
12)



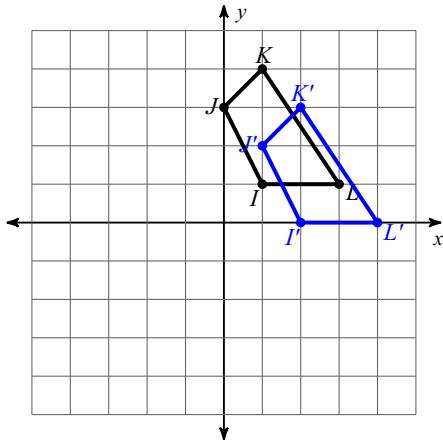
13)



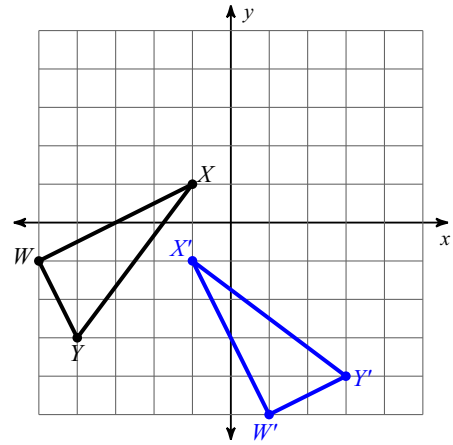
14)



15)

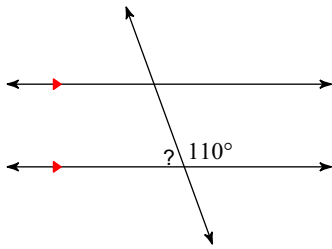


16)

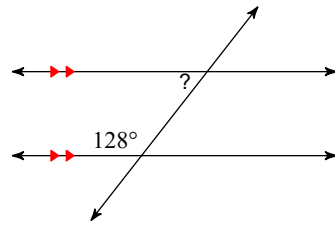


**Find the measure of each angle indicated.**

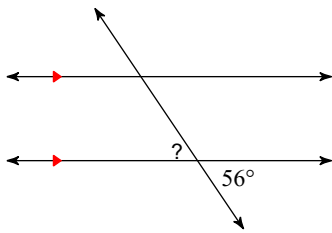
17)



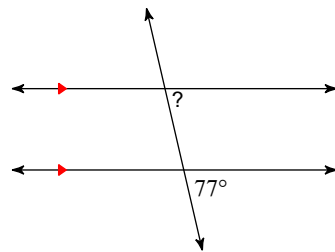
18)



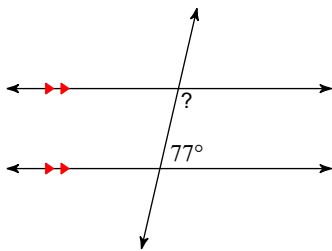
19)



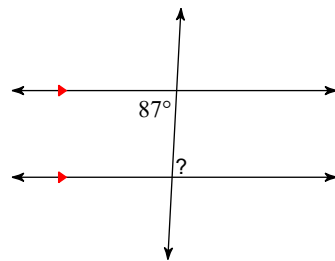
20)



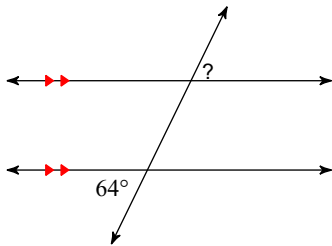
21)



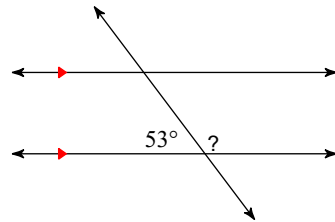
22)



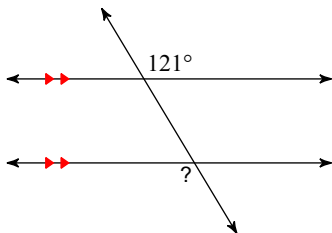
23)



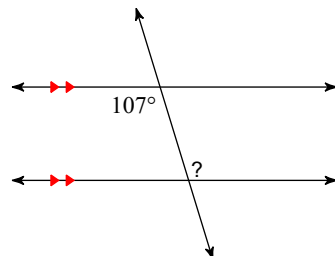
24)



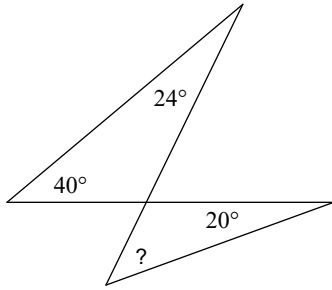
25)



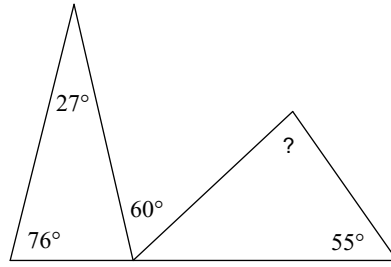
26)



27)

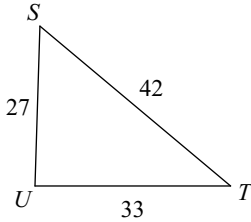
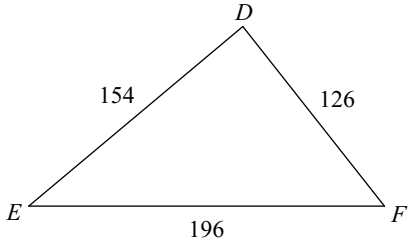


28)



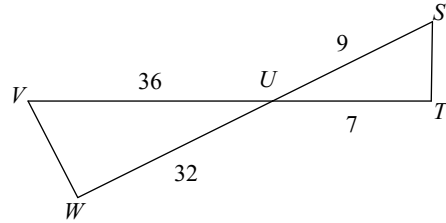
**State if the triangles in each pair are similar. If so, state how you know they are similar and complete the similarity statement.**

29)



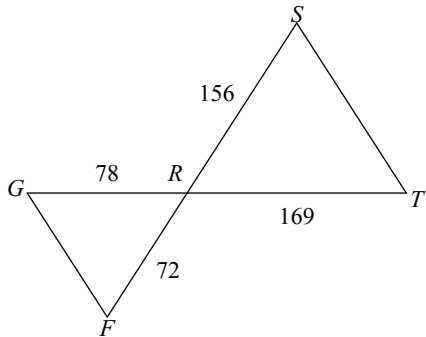
$\triangle FED \sim$  \_\_\_\_\_

30)



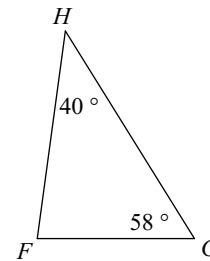
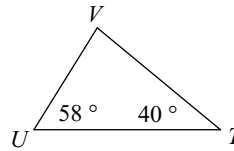
$\triangle UVW \sim$  \_\_\_\_\_

31)



$\triangle RST \sim$  \_\_\_\_\_

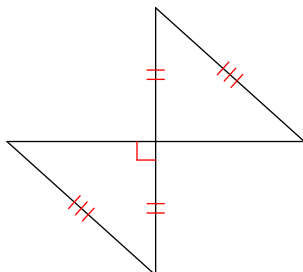
32)



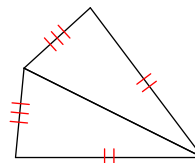
$\triangle HGF \sim$  \_\_\_\_\_

**State if the two triangles are congruent. If they are, state how you know.**

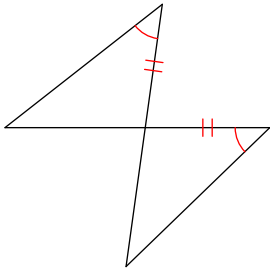
33)



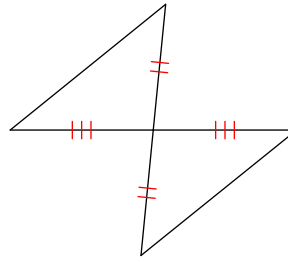
34)



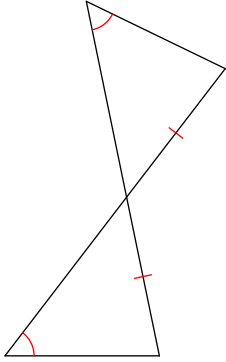
35)



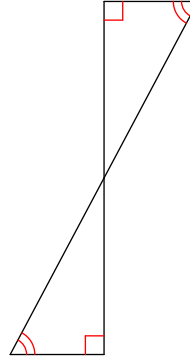
36)



37)

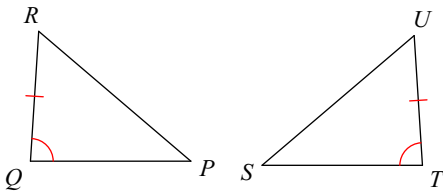


38)

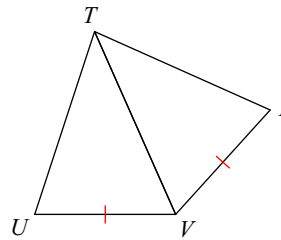


**State what additional information is required in order to know that the triangles are congruent for the reason given.**

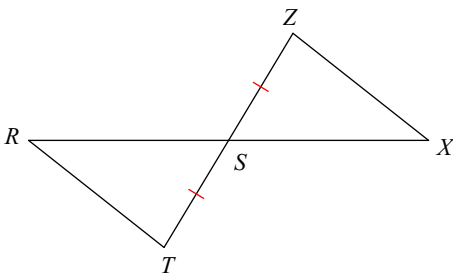
39) SAS



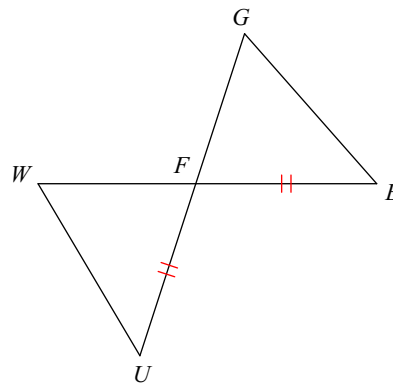
40) SSS



41) AAS

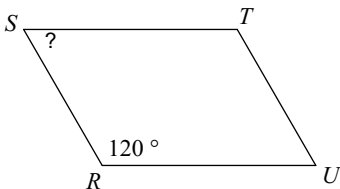


42) ASA

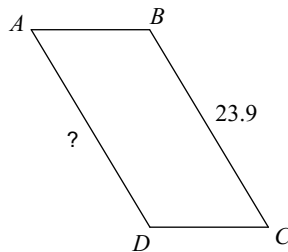


**Find the measurement indicated in each parallelogram.**

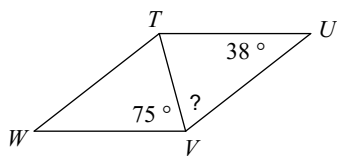
43)



44)

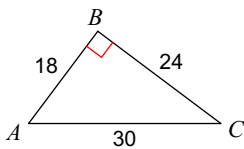


45)

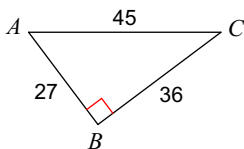


Find the value of each trigonometric ratio.

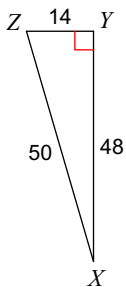
47)  $\tan C$



49)  $\sin C$

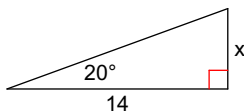


51)  $\tan Z$

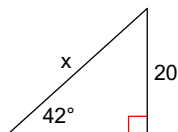


Find the missing side. Round to the nearest tenth.

53)

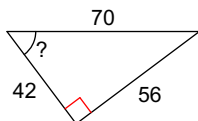


55)

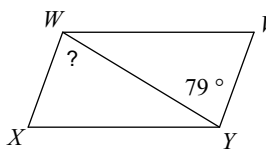


Find the measure of the indicated angle to the nearest degree.

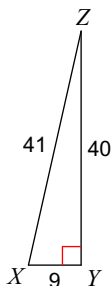
57)



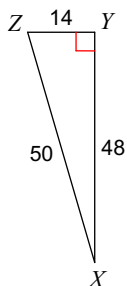
46)



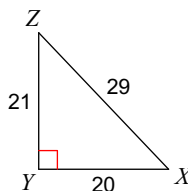
48)  $\sin X$



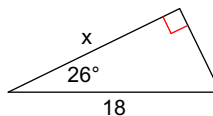
50)  $\cos Z$



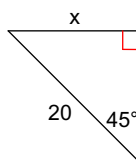
52)  $\sin Z$



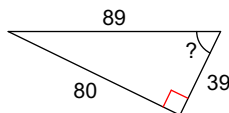
54)



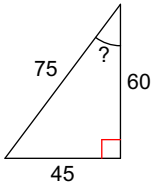
56)



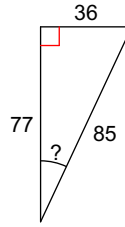
58)



59)

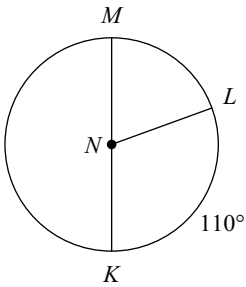


60)

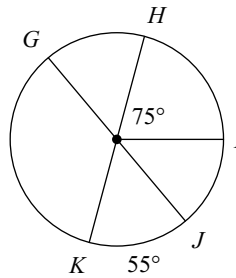


**Find the measure of the arc or central angle indicated. Assume that lines which appear to be diameters are actual diameters.**

61)  $m\angle MNL$

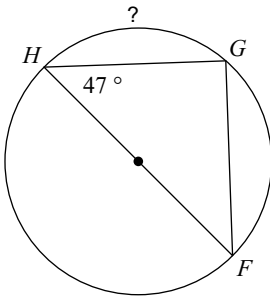


62)  $m\widehat{IK}$



**Find the measure of the arc or angle indicated.**

63)



64)

