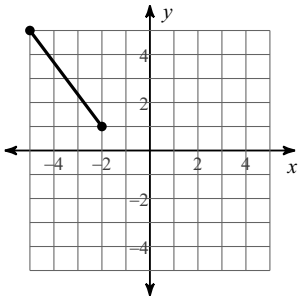
Geometry Name_____ ID: 1

Final Review Problems

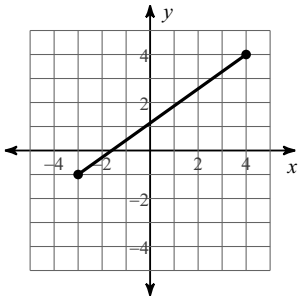
Date_____ Period____

Find the distance between each pair of points.

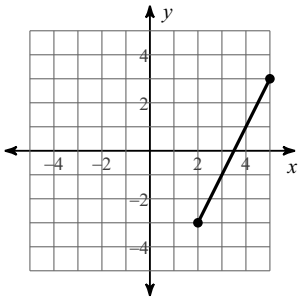
1)



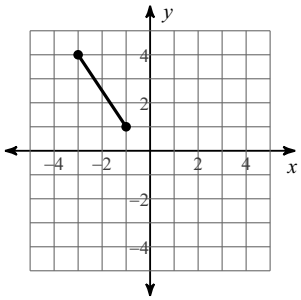
2)



3)



4)

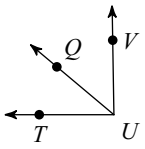


Find the midpoint of the line segment with the given endpoints.

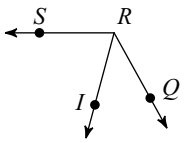
5) $(9, 1), (2, -9)$

6) $(2, 9), (-1, 5)$

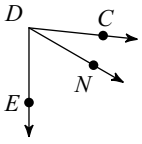
7) Find $m\angle TUV$ if $m\angle TUQ = 40°$ and $m\angle QUV = 49°$.



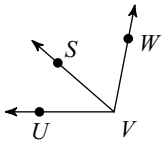
8) Find $m\angle QRI$ if $m\angle IRS = 75°$ and $m\angle QRS = 119°$.



9) $m\angle CDN = 23x + 1$, $m\angle CDE = 85x - 1$, and $m\angle NDE = 60°$. Find x.

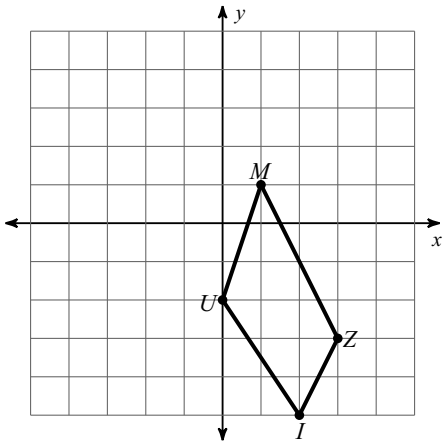


10) $m\angle UVW = 101°$, $m\angle SVW = x + 65$, and $m\angle UVS = x + 46$. Find x.

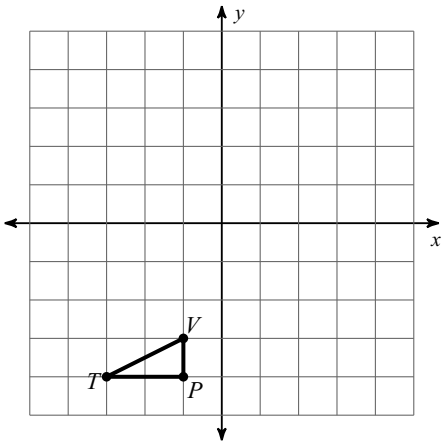


Graph the image of the figure using the transformation given.

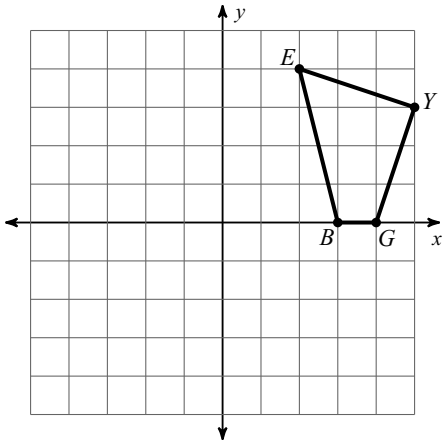
11) reflection across the y-axis



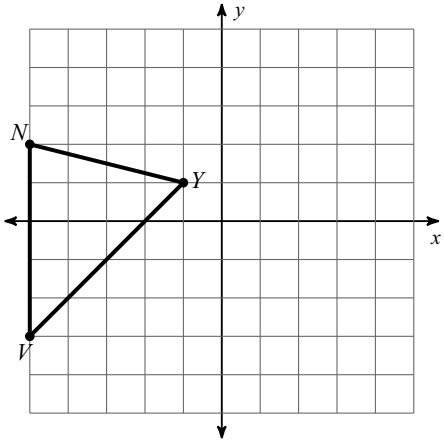
12) rotation 180° about the origin



13) rotation 90° counterclockwise about the origin

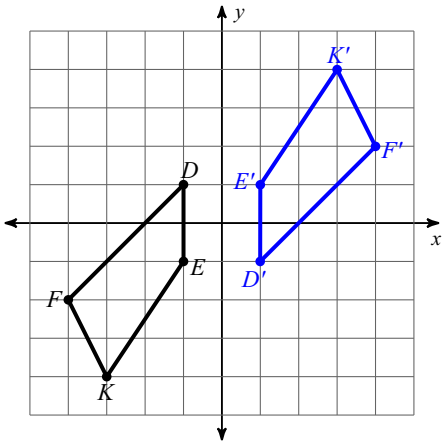


14) translation: $(x, y) \rightarrow (x + 3, y - 2)$

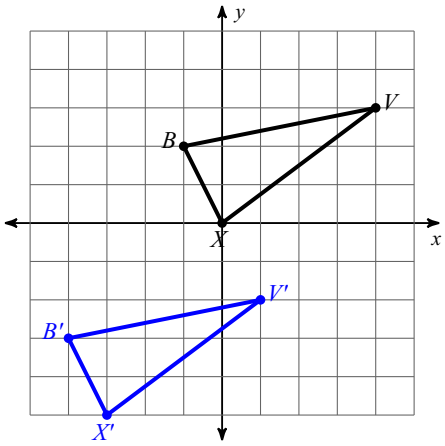


Write a rule to describe each transformation.

15)

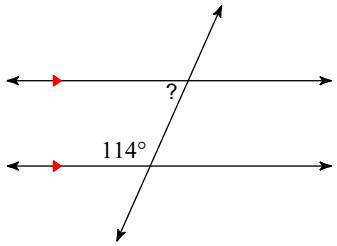


16)

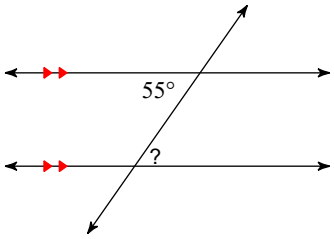


Find the measure of each angle indicated and state the name of the angle pair.

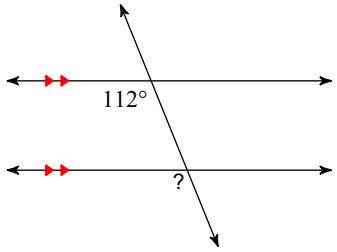
17)



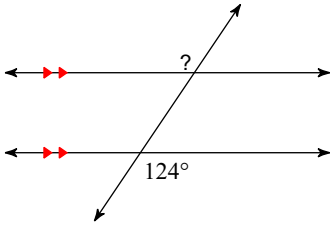
18)



19)

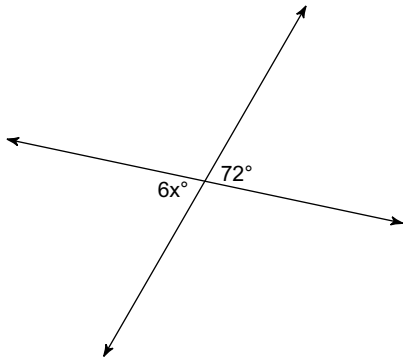


20)

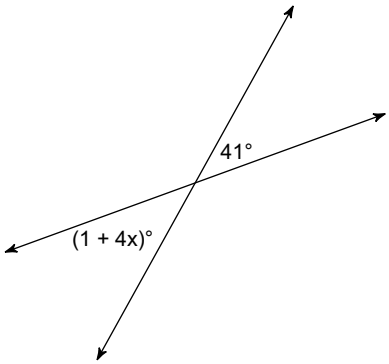


Find the value of x.

21)

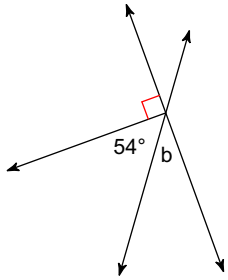


22)

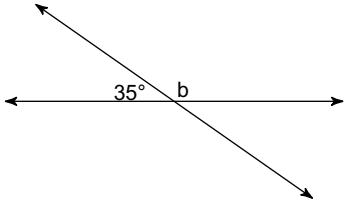


Find the measure of angle b.

23)

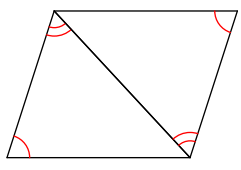


24)

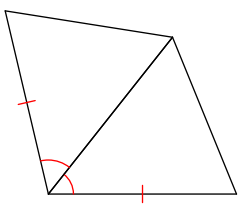


State if the two triangles are congruent. If they are, state how you know.

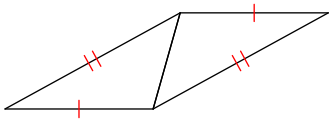
25)



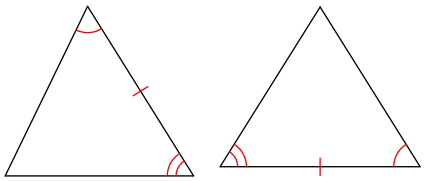
26)



27)

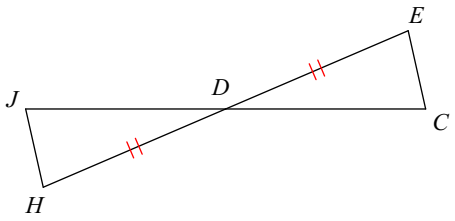


28)

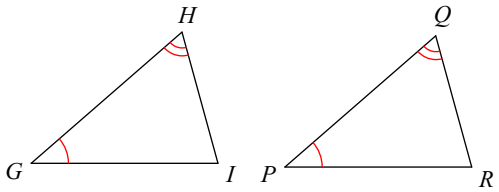


State what additional information is required in order to know that the triangles are congruent for the reason given.

29) AAS

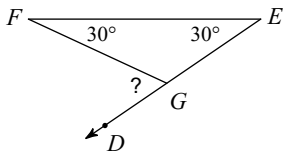


30) ASA

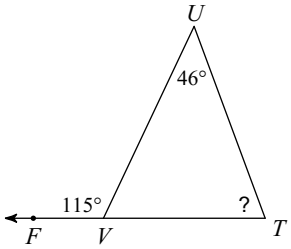


Find the measure of each angle indicated.

31)

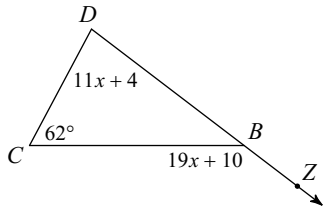


32)

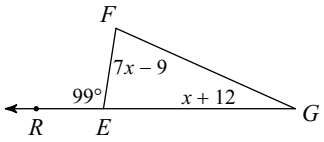


Solve for *x*.

33)

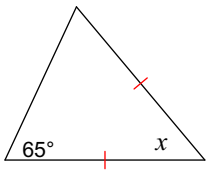


34)

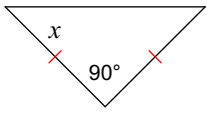


Find the value of *x*.

35)

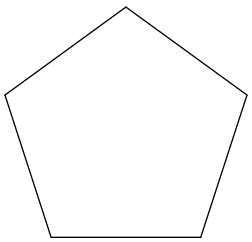


36)

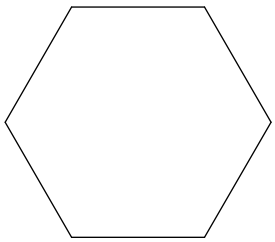


Find the interior angle sum for each polygon. Round your answer to the nearest tenth if necessary.

37)



38)



39) regular 14-gon

40) regular 25-gon

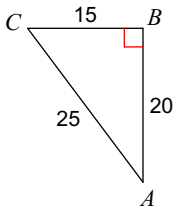
Find the measure of one interior angle in each regular polygon. Round your answer to the nearest tenth if necessary.

41) regular hexagon

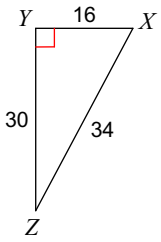
42) regular 25-gon

Find the value of each trigonometric ratio.

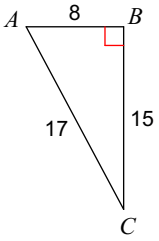
43) tan C



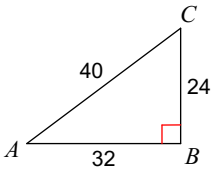
44) sin X



45) sin C

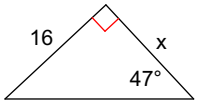


46) cos A

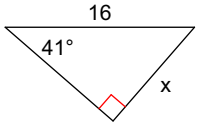


Find the missing side. Round to the nearest tenth.

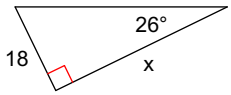
47)



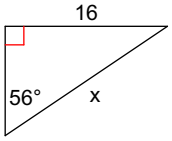
48)



49)

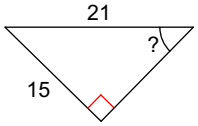


50)

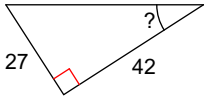


Find the measure of the indicated angle to the nearest degree.

51)

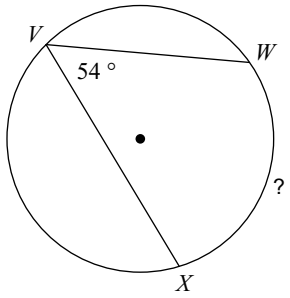


52)

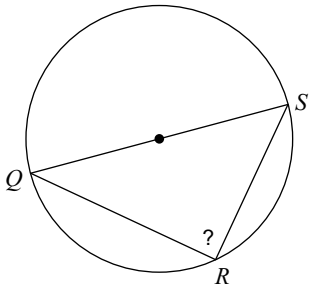


Find the measure of the arc or angle indicated.

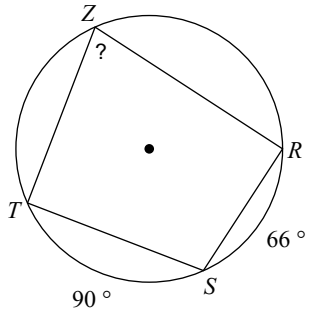
53)



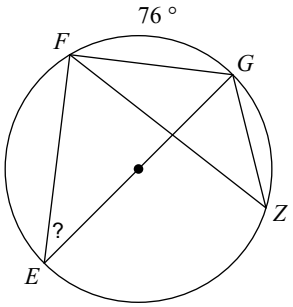
54)



55)

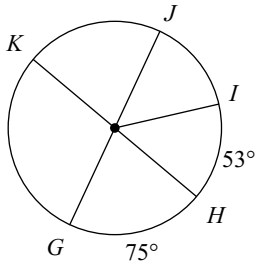


56)

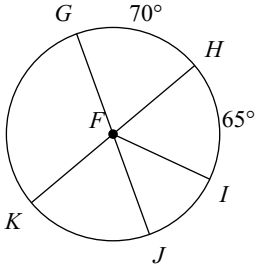


Find the measure of the arc or central angle indicated. Assume that lines which appear to be diameters are actual diameters.

57) $m\widehat{JHK}$

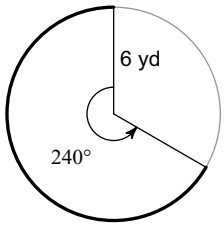


58) $m\angle IFK$

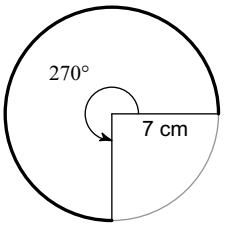


Find the length of each arc.

59)

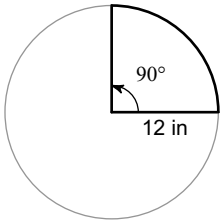


60)

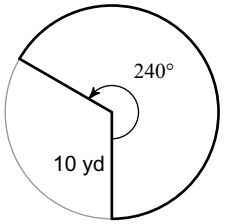


Find the area of each sector.

61)



62)



Identify the center and radius of each.

63) $(x + 5)^2 + (y + 3)^2 = 169$

64) $(x + 11)^2 + (y + 2)^2 = 16$

65) $(x - 14)^2 + (y + 13)^2 = 6$

66) $(x - 14)^2 + (y - 2)^2 = 2$

Use the information provided to write the equation of each circle.

67) Center: $(-11, 10)$
Radius: 7

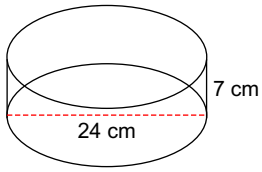
68) Center: $(-9, 3)$
Radius: 5

69) Center: $(2, -2)$
Radius: 8

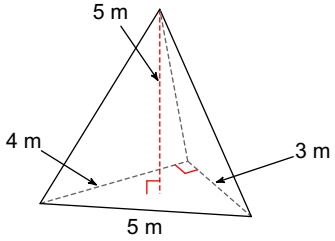
70) Center: $(6, 15)$
Radius: 2

Find the volume of each figure. Round your answers to the nearest hundredth, if necessary.

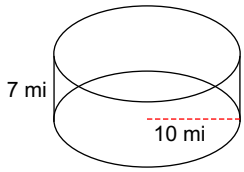
71)



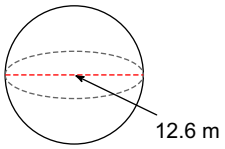
72)



73)

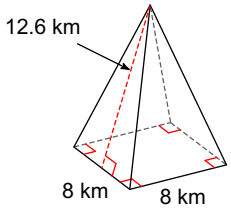


74)

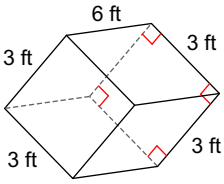


Find the surface area of each figure. Round your answers to the nearest hundredth, if necessary.

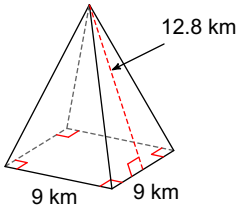
75)



76)



77)



78)