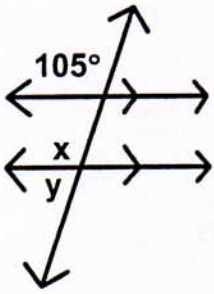
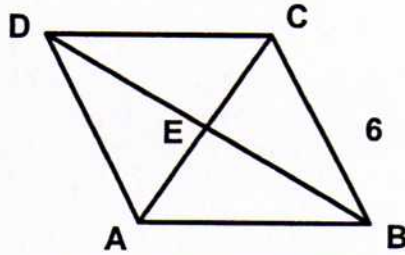


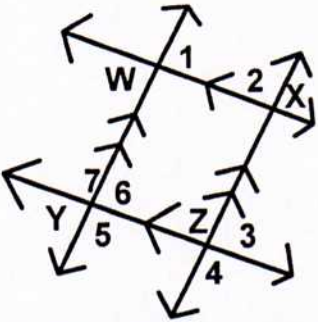
- 1) Find the measures of  $x$  and  $y$ .



- 8) In rhombus  $ABCD$ ,  $m\angle DAB = 2m\angle ADC$  and  $CB = 6$ . Find the remaining lengths and angle measures.

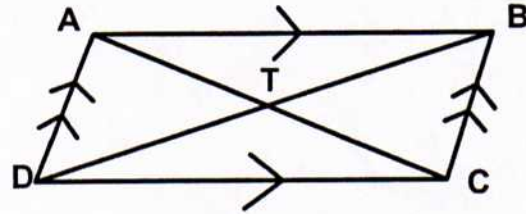


- 2) In the figure,  $m\angle 1 = 53^\circ$ . Find the measure of each angle.

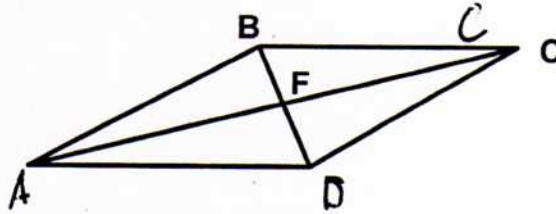


- 3) In the figure above,  $m\angle 1 = 3a + 40$ ,  $m\angle 2 = 2a + 25$ , and  $m\angle 3 = 5b - 26$ . Find  $a$  and  $b$ .

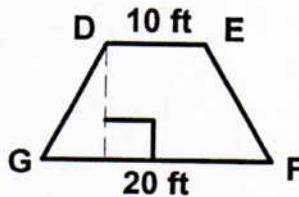
- 4) How does one prove that  $\triangle ACD \cong \triangle CBA$ ?



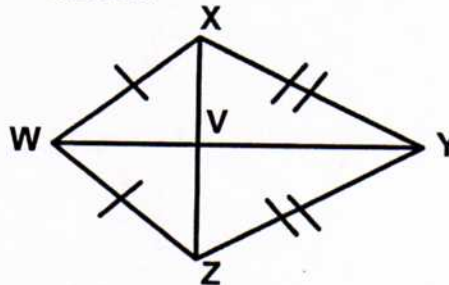
- 9) Find the area of the rhombus if  $AF = 14$  and  $BD = 7$ .



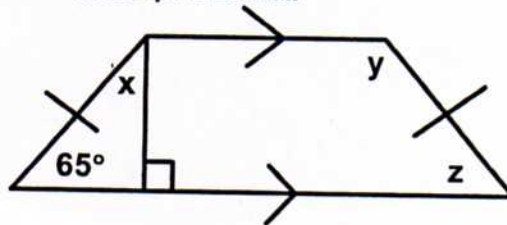
- 10) Trapezoid  $DEFG$  has an area of 120 square feet. Find the height of  $DEFG$ .



- 11)  $m\angle XWZ = 96$ . Find  $m\angle WXV$  and  $m\angle WVX$ .

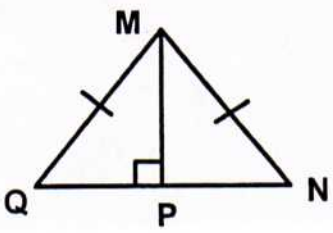


- 12) Find the values of the variables in the quadrilateral.

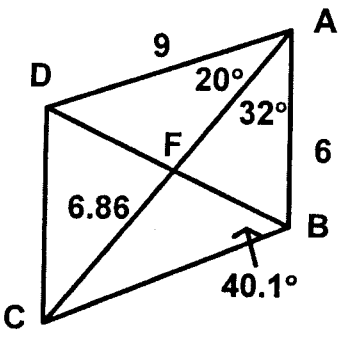


*Handwritten signature*

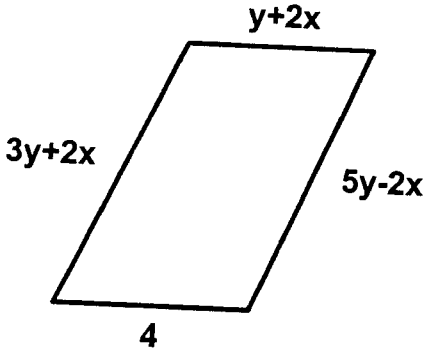
- 5) How does one prove that  $\triangle MNP \cong \triangle MQP$ ?



6) Use parallelogram ABCD to find each remaining measure.



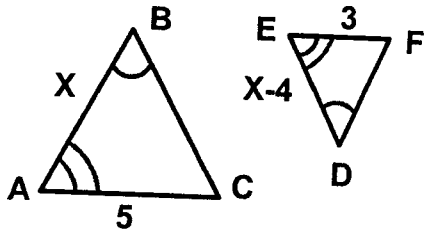
7) Find x and y so that the quadrilateral is a parallelogram



13) Solve for y in  $\frac{6}{18.2} = \frac{9}{y}$ .

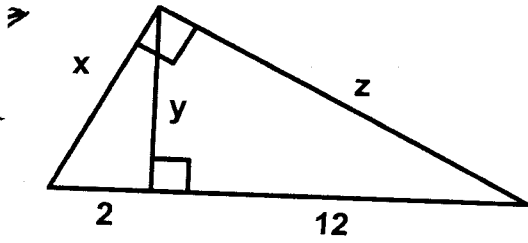
14) Find the measures of the angles in a triangle if the ratio of the measures is 6:9:10.

15) Identify the similar triangles and find the measures of AB and DE.



16) Name the three ways to prove triangles are similar.

17) Find x, y & z. Leave your answers in simplest radical form.



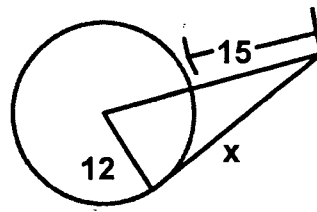
*Review*

30, Find the area of the triangle.

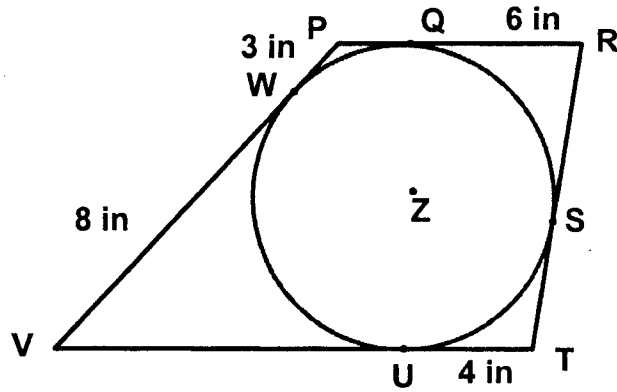


31) What is the equation of a circle centered at (5,-4) with a diameter of 18?

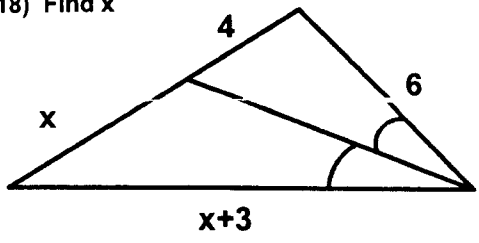
32) Find x.



33) Find the the perimeter of VPRT.

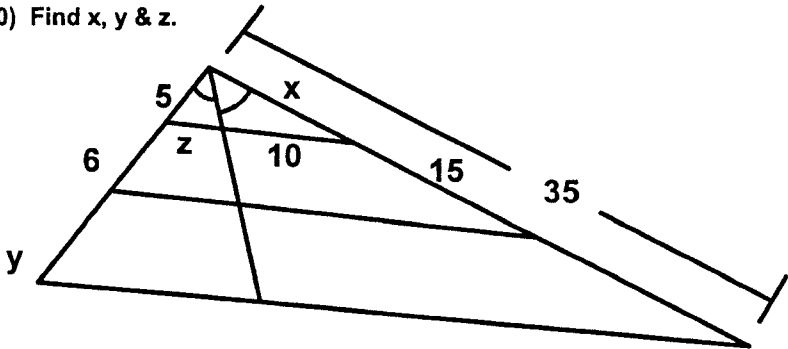


18) Find x



19) Find the geometric mean of 6 and 48.

20) Find x, y & z.



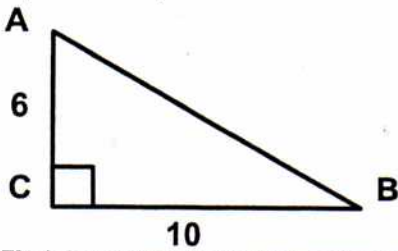
21) Two similar figures have areas  $81\text{cm}^2$  and  $196\text{cm}^2$ , respectively. What is their similarity ratio?

22) The area of a regular octagon is  $72\text{cm}^2$ . What is the area of a regular octagon with sides three times the length of the smaller octagon?

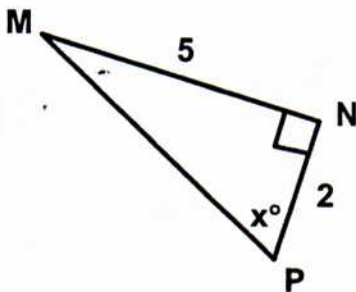
23) Find the similarity ratio of two similar figures if their areas are  $18\text{in}^2$  and  $128\text{in}^2$ .

- 24) Find the similarity ratio, the ratio of surface areas, and the ratio of volumes of two similar solids with corresponding lengths of 4cm and 7cm.
- 25) The surface areas of two similar cylinders are  $80\pi \text{ m}^2$  and  $180\pi \text{ m}^2$ . The volume of the larger cylinder is  $324\pi \text{ m}^3$ . Find the volume of the smaller cylinder.

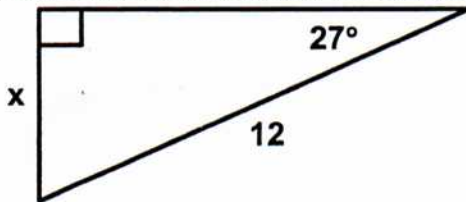
26) Express  $\sin B$ ,  $\cos B$  and  $\tan B$  as ratios.



27) Find the value of  $x$  to the nearest degree.

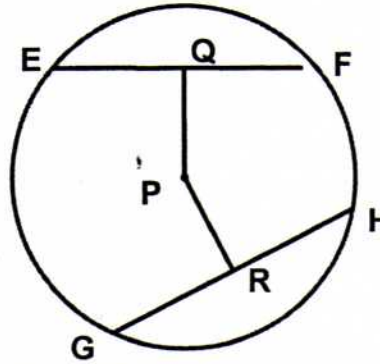


28) Find the value of  $x$  to the nearest hundredth.

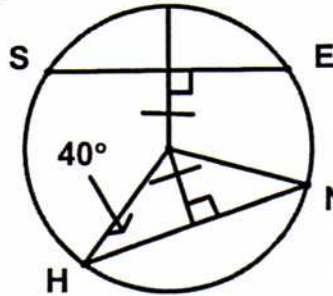


29) After flying at an altitude of 500 meters, a helicopter starts to descend when its ground distance from the landing pad is 11 km. What is the angle of depression for this part of the flight?

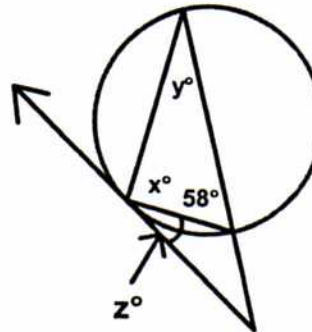
34) Find PR and RH if the radius of  $\odot P$  is 15 and  $EF=24$ .



35) Find  $m\widehat{ES}$ .

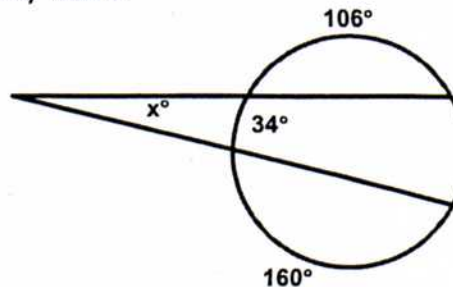


36) Find the values of  $x$ ,  $y$ , and  $z$  if AB is a diameter.

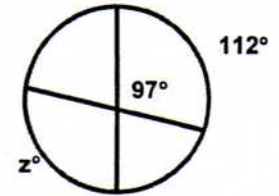


37) Suppose quadrilateral VWXY is inscribed in  $\odot C$ . If  $m\angle X=28$  and  $m\angle W=110$ , find  $m\angle V$  and  $m\angle Y$ .

38) Find  $x$ .



39) Find  $z$ .



40) Find the diameter of the circle.

