8.

If △ABC is inscribed in a circle and $\overset{\frown}{AC} \cong \overset{\frown}{AB}$, tell whether each of the following are true sometimes (S), always (A), or never (N):

a. $\overline{AB} \cong \overline{AC}$

b. $\overline{AC} \cong \overline{BC}$

c. $\overline{AB}$ & $\overline{AC}$ are equidistant from the center of the circle.

d. $\angle B \cong \angle C$

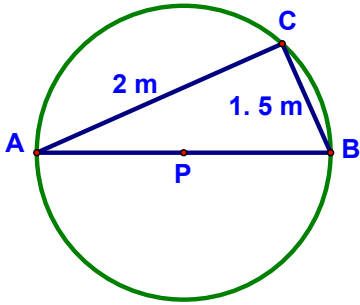e. $\angle BAC$ is a right angle
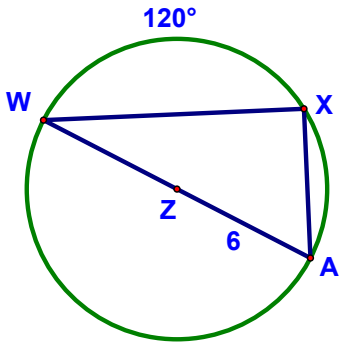
f. $\angle ABC$ is a right angle

9.

Find m∠P

$(6x)°$ $(15x + 33)°$
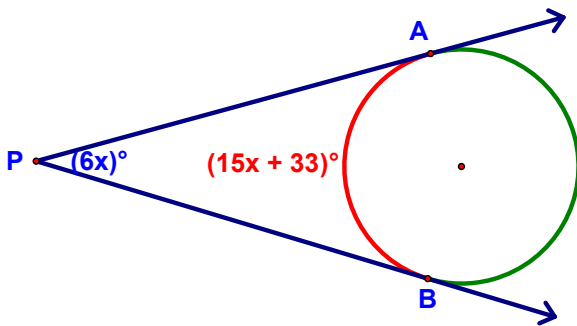
10.

If $\overline{AB}$ is a diameter of $\odot$P, CB = 1.5m, and CA = 2m, find the radius of $\odot$P.

11.

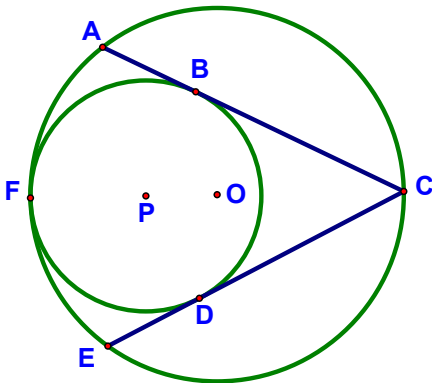**In $\odot$Z, find AX and the perimeter of $\triangle$WAX**

14.

A square is inscribed in a circle with a radius of 10. Find the length of a side of the square.

15.

Quadrilateral ABCD is inscribed in ⊙O. AB = 12, BC = 16, CD = 10, and ∠ABC is a right angle. Find the measure of $\overline{AD}$ in simplified radical form.
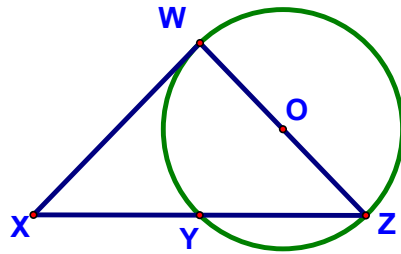
16.

Circles O and P are tangent at F. $\overline{AC}$ and $\overline{CE}$ are tangent to ⊙P at B and D. If m$\overset{\frown}{DFB}$ = 223°, find m$\overset{\frown}{AE}$.

20.

Given: △WXZ is isosceles with $\overline{WX} \cong \overline{WZ}$
$\overline{WZ}$ is a diameter of ⊙O

Prove: Y is the midpoint of $\overline{XZ}$

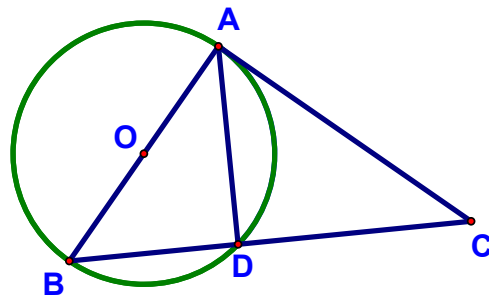| Statements	Reasons

21.

Given: $\overline{AC}$ is tangent to ⊙O at point A

Prove: △ADC ~ △BDA

Statements	Reasons

27.

Given that ⊙A is tangent to ⊙B at point R, $\overline{PT}$ is a common external tangent at P and T, and m∠Q = 43°, find m∠S.

P

T

Q

43°

A

R

B

S