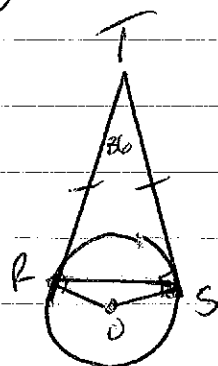


Pg. 335 # 8-10, 14, 16-18

8)



$$a) m\angle TRS = \frac{180-36}{2} = 72^\circ$$

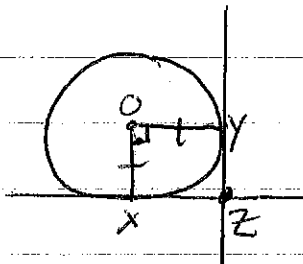
$$m\angle TSR = 72^\circ$$

$$b) m\angle TRO = 90^\circ \quad m\angle TSO = 90^\circ$$

$$m\angle SRO = 90-72 = 18^\circ \quad m\angle RSO = 18^\circ$$

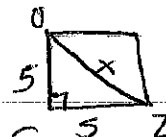
$$c) m\angle ROS = 180 - (18+18) = 144^\circ$$

9)



$$a) \text{ Square} - \overline{OY} \cong \overline{OX} \text{ and } \angle O = 90^\circ$$

$$b) OX = 5$$

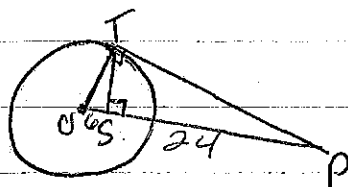


$$\text{hyp} = \text{leg} \sqrt{2}$$

$$x = 5\sqrt{2}$$

$$OZ = 5\sqrt{2}$$

10)



$$a) \overline{TS} \text{ geom. mean between } \overline{OS} \text{ and } \overline{PS}$$

$$b) \overline{TO} \text{ G. m. between } \overline{PO} \text{ and } \overline{SO}$$

c)

$$\frac{6}{TS} = \frac{TS}{24}$$

$$12^2 + 24^2 = TP^2$$

$$144 + 576 = TP^2$$

$$TS^2 = 144$$

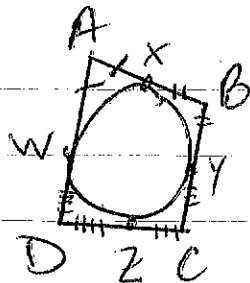
$$720 = TP^2$$

$$\boxed{TS = 12}$$

$$\sqrt{1440} = TP$$

$$\boxed{12\sqrt{10} = TP}$$

14)



$$AX = AW \quad DW = DZ$$

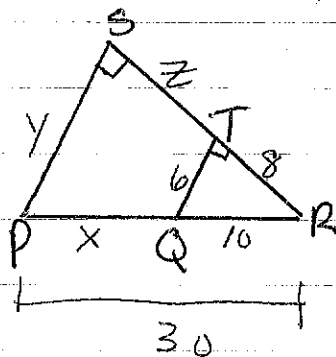
$$BX = BY \quad CZ = CY$$

$$AB = \boxed{AX + BX} \quad AD = \boxed{AW + DW}$$

$$DC = \boxed{DZ + CZ} \quad BC = \boxed{BY + CY}$$

$AB + DC = AD + BC$ Seg. Add Post
and Substitution

16)



$$QR = 10 \quad (6, 8, 10)$$

$$PQ = 20$$

$$\frac{10}{6} = \frac{30}{PS}$$

$$\frac{8}{6} = \frac{10}{ST}$$

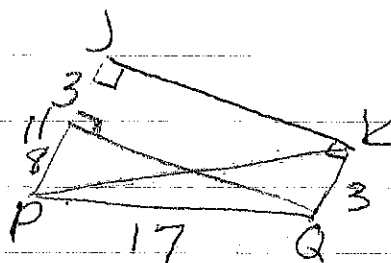
$$10 PS = 180$$

$$16 ST = 160$$

$$PS = 18$$

$$ST = 16$$

17)



$$8^2 + x^2 = 17^2$$

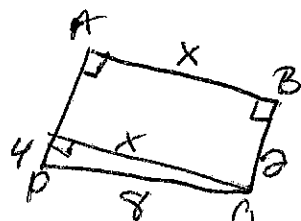
$$64 + x^2 = 289$$

$$x^2 = 225$$

$$x = 15$$

$$JK = 15$$

18)



$$4^2 + x^2 = 8^2 \quad x^2 = 48$$

$$16 + x^2 = 64 \quad x = 4\sqrt{3}$$