THIRUVANANTHAPURAM EDUCATIONAL DISTRICT
MATHEMATICS WORKSHEET 2021-22 - STANDARD X
1.In the figure $\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}$ are points on the circle with centre $\mathrm{O} .<\mathrm{B}=130^{\circ}$

a) What is the measure of $<\mathrm{D}$ ?
b) What is the central angle of arc ABC ?
2. In the figure $P A=14 \mathrm{~cm}, A B=6 \mathrm{~cm}, P C=16 \mathrm{~cm}$. Find the length of $P D$ ?

3. If we draw a circle with PQ as the diameter in the following figure,

a) Whether the point R is inside, outside or on the circle?
b) Where is the point $S$ ?
c) Where is the point T ?
4. In the cyclic quadrilateral $\mathrm{PQRS}, \mathrm{QR}$ is extended to Y . If $\angle S R Y=100^{\circ}$, $<\mathrm{RPS}=50^{0}$.

a) What is $\angle S R Q$ ?
b) What is $\angle S P Q$ ?
c) What is <RPQ?
5. Draw a rectangle of sides $5 \mathrm{~cm}, 3 \mathrm{~cm}$ and draw a square of equal area.
6.


C and D are two points on the semicircle with diameter AB . If $\angle \mathrm{ABD}=70^{\circ}$, <DAC $=30^{\circ}$. Then,
a) What is $\angle A C D$ ?
b) What is <CDA?
c) What is $\angle \mathrm{BDC}$ ?
d) What is $\angle D A B$ ?
7. $\mathrm{A}, \mathrm{B}, \mathrm{C}$ and D are points on the circle with centre $\mathrm{O} . \angle \mathrm{OAC}=30^{\circ}$,

a) What is the measure of $\angle \mathrm{AOC}$ ?
b) What is the measure of $\angle \mathrm{ABC}$ ?
c) What is the measure of $\angle \mathrm{ADC}$ ?
8. Draw a triangle with angles $45^{\circ}, 85^{\circ}$ and circumradius 3 cm .
9. In the figure the chords AB and CD intersect at P . If $\mathrm{PA}=8 \mathrm{~cm}, \mathrm{~PB}=6 \mathrm{~cm}$, $\mathrm{PC}=4 \mathrm{~cm}, \mathrm{BC}=4 \mathrm{~cm}$

a) Write the angle equal to the measure of $<\mathrm{A}$.
b) Write one more pair of equal angles.
c) Write the length of PD.
d) Write the length of AD .
10. In the figure chord BD is perpendicular to the diameter AC .


Write the measures of the following angles.
a) $\angle \mathrm{BAC}$
b) $\angle B C D$
c) $\angle \mathrm{ADC}$
d) $<\mathrm{CDM}$
e) <BAP

