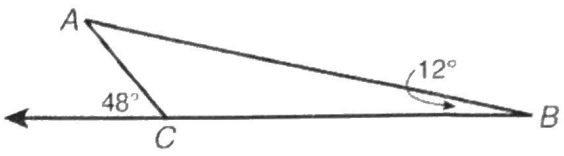
Unit 3 Review (Triangle ≅)

Name: _____

Date: _____

1) _____ What is m∠A?

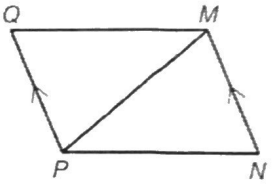


2) _____ If $\triangle PQR \cong \triangle STU$, which of the following statements are ALL true?

A) $\angle P \cong \angle S$, $\overline{PQ} \cong \overline{TU}$, $\triangle RQP \cong \triangle UTS$ B) $\angle R \cong \angle U$, $\overline{PR} \cong \overline{SU}$, $\triangle QPR \cong \triangle TUS$

C) $\angle Q \cong \angle T$, $\overline{PR} \cong \overline{SU}$, $\triangle QRP \cong \triangle TUS$ D $\angle Q \cong \angle T$, $\overline{PQ} \cong \overline{TU}$, $\triangle RQP \cong \triangle STU$

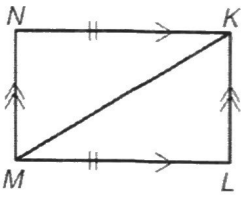
3) _____ What additional information is needed to prove $\triangle MNP \cong \triangle PQM$ by AAS?



A) $\angle N \cong \angle Q$ B) $\angle MPN \cong \angle MPQ$

C) $\overline{MQ} \cong \overline{PN}$ D) $\overline{MN} \cong \overline{PQ}$

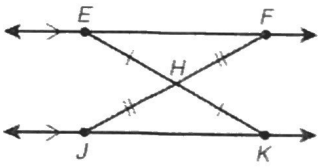
4) _____ Which CANNOT be used to prove $\triangle MNK \cong \triangle KLM$?



A) SAS B) AAS

C) ASA D) HL

5) _____ In the figure, H is the midpoint of $\overline{EK}$ and $\overline{FJ}$. What reason can be used in a proof to show $\overline{EF} \cong \overline{JK}$?



A) AAS B) Def. of bisects C) ASA D) CPCTC E) Vertical Angles

6) _____ Suppose $\triangle MWR \cong \triangle CYQ$, $MW = 8$, $WR = 9$, and $CQ = 10$. What is YQ?

A) 10 B) 8 C) 11 D) 9

Name:_____

Unit 2 Assessment • **Right Triangle Trigonometry** SOHCAHTOA Review

1. If $\sin 22.6° \approx \frac{10}{26}$ and $\cos 22.6° \approx \frac{24}{26}$, which is true?

   A. $\tan 22.6° \approx \frac{10}{24}$

   B. $\tan 22.6° \approx \frac{14}{24}$

   C. $\tan 22.6° \approx \frac{24}{10}$

   D. $\tan 22.6° \approx \frac{26}{10}$

2. Which equation is true?

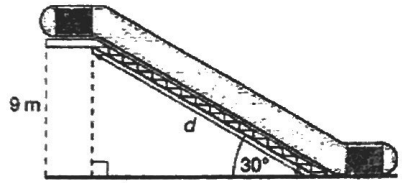
   A. $\cos 10° = \tan 10°$

   B. $\cos 10° = \cos 80°$

   C. $\sin 80° = \tan 80°$

   D. $\sin 80° = \cos 10°$

3. An escalator lifts people to the second floor of a store, which is 9 meters above the first floor. The escalator rises at a 30° angle. What is d, the total distance a person travels from the bottom of the escalator to the top of the escalator?



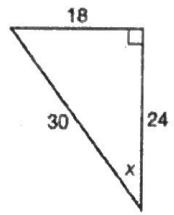
   A. 4.5 meters

   B. $9\sqrt{2}$ meters

   C. $9\sqrt{3}$ meters

   D. 18 meters

4. Which of the following is a trigonometric ratio for this triangle?



   A. $\cos x = \frac{24}{30}$

   B. $\cos x = \frac{18}{24}$

   C. $\tan x = \frac{24}{18}$

   D. $\tan x = \frac{18}{30}$

5. At a certain time of day, a building that is 60 feet tall casts a 75-foot shadow. What is the approximate angle of elevation of the sun when this shadow is cast? Give the answer to the nearest degree.

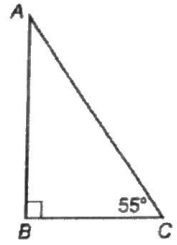
   A. 37°

   B. 39°

   C. 51°

   D. 53°

6. In $\triangle ABC$, $m\angle C = 55°$ and $\sin C \approx 0.82$.



   What is $m\angle A$ and cosine of $\angle A$?

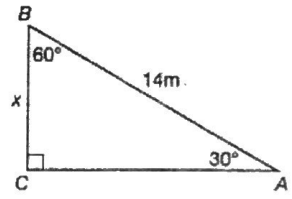
   A. $m\angle A = 35°$ and $\cos A \approx 0.18$.

   B. $m\angle A = 35°$ and $\cos A \approx 0.82$.

   C. $m\angle A = 45°$ and $\cos A \approx 0.18$.

   D. $m\angle A = 45°$ and $\cos A \approx 0.82$.

7. What is x, the length of $\overline{BC}$ in $\triangle ABC$?



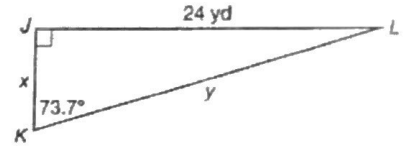
   A. 7 meters

   B. $7\sqrt{3}$ meters

   C. 28 meters

   D. $14\sqrt{3}$ meters

8. Which shows the approximate lengths of sides x and y of $\triangle JKL$?



   A. $x = 6.7$ yd and $y = 23$ yd

   B. $x = 7$ yd and $y = 25$ yd

   C. $x = 23$ yd and $y = 6.7$ yd

   D. $x = 25$ yd and $y = 7$ yd

9. In a right triangle, one of the acute angles measures x and the other acute angle measures y. If $\sin x = \frac{11}{61}$ and $\cos x = \frac{60}{61}$, what are the values of $\cos y$ and $\tan y$?

   A. $\cos y = \frac{11}{61}$ and $\tan y = \frac{11}{60}$

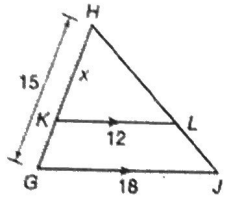
   B. $\cos y = \frac{60}{61}$ and $\tan y = \frac{11}{60}$

   C. $\cos y = \frac{11}{61}$ and $\tan y = \frac{60}{11}$

   D. $\cos y = \frac{60}{61}$ and $\tan y = \frac{60}{11}$

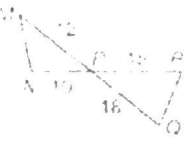
Unit 1 & 4 Review
(Similarity & Transformations)

9) In ΔGHJ, $\overline{KL}$ was drawn parallel to $\overline{GJ}$ to create ΔKHL. What is the value of x?



A. 5 units
B. 7.5 units
C. 10 units
D. 12 units

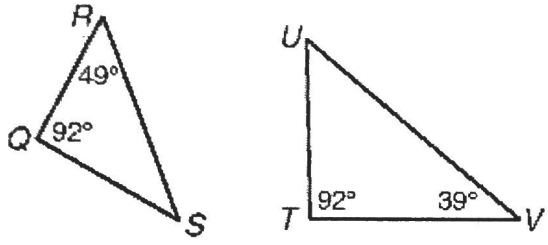
10) $\overline{MO}$ and $\overline{NR}$ intersect at point P. Can it be shown that $\Delta MNP \sim \Delta QRP$?



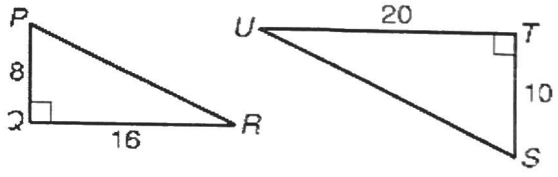
A. Yes, by the AA Postulate.
B. Yes, by the SAS Theorem.
C. Yes, by the SSS Theorem.
D. No, the information given is not sufficient to determine if the triangles are similar.

11) Tell which similarity proves the figures are similar (if they are) and write a similarity statement.

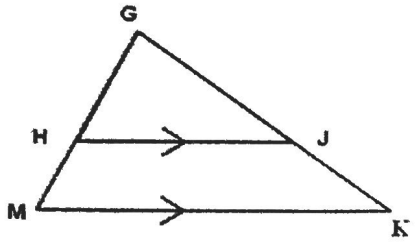
a) $\Delta TVU \sim$_____ by _____



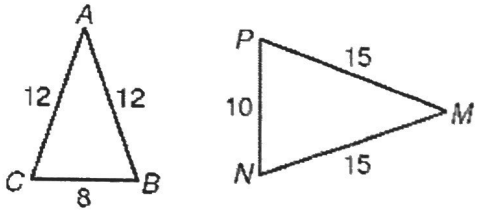
b) $\Delta QPR \sim$_____ by _____



c) $\Delta GHJ \sim$_____ by _____



d) $\Delta NPM \sim$_____ by _____



Unit 7 Review

Geometry: EOC Review
Circles

Name _____

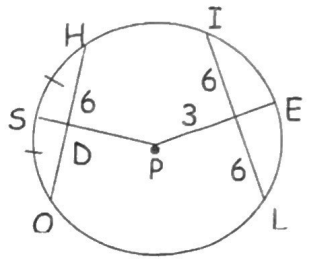
1. Use the figure to answer the following. Point P is the center of the circle. $mIE = 62$

a. $m\overline{OD}$ = _____

b. mEL= _____

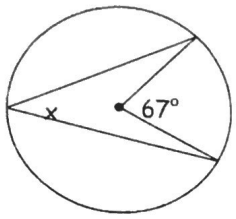
c. m∠PDH = _____

d. $m\overline{PD}$ = _____



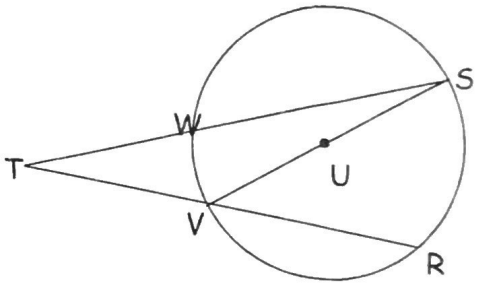
Find the measure of the angle marked x.

2. x = _____



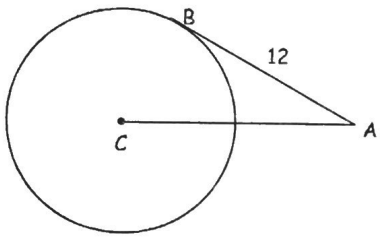
If $\overline{VS}$ is a diameter for ⊙U, mRV = 30 ° and mSW = 70°, find m∠T.

3. m∠T = _____



Find the length of the radius of the circle if $\overline{AB}$ is a tangent for the circle. (Show work.)

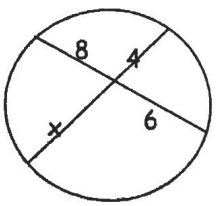
4. r = _____



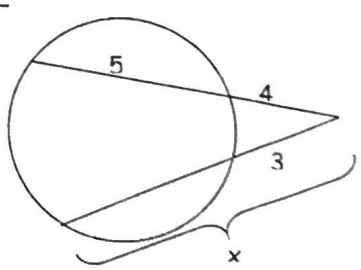
$\overline{AC} = 13$

Find the length of x in the following figures. Show how you set up your problems.

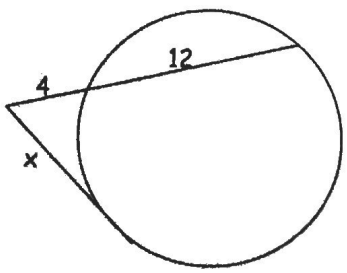
5. x = _____



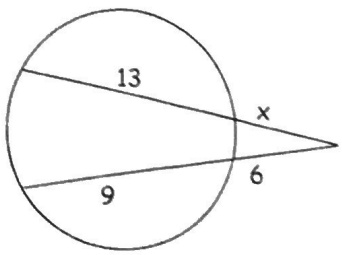
6. x = _____



7. x = _____



8. x = _____



Unit 5 & 9 Review

Quadrilaterals/Equations of Circles

Name:_____ Date:_____

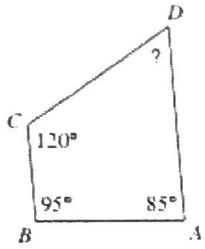
1) In parallelograms, opposite sides are _____ and diagonals _____.

2) In a Rhombus, diagonals _____ opposite angles.

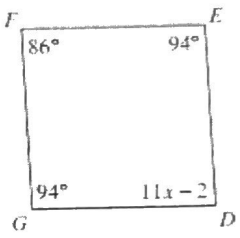
3) In quadrilateral ABCD, two consecutive angles are congruent. This quadrilateral is a _____.

Find the measure of each indicated angle:

4)

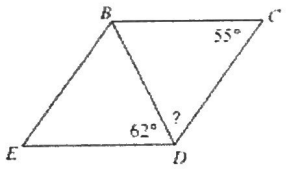


5)

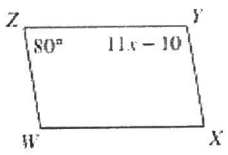


Solve each parallelogram for the indicated measure

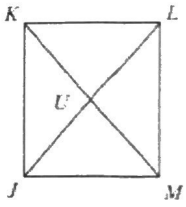
6)



7)



8) KU= 3x+3 UM= 4x-4; x=?

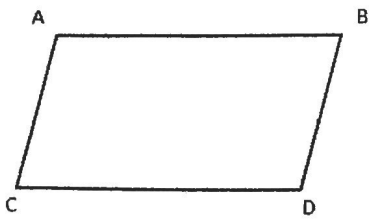


9) Find the missing endpoint if the midpoint is (4,-2) and the other endpoint is (1,-6)

10) Partition segment $\overline{AB}$ by the given ratio: A (6,-4) & B (-10,2); Ratio: 2:5

11) In $\square ABCD$, $\overline{AD}$ & $\overline{CB}$ intersect to form point E.

AB= 20 cm, BE=12.5 cm, and $m\angle$BDC=105. Find each measure.



a) BC

b) BD

c) CE

d) $m\angle$DBA

e) $m\angle$DCA

f) $m\angle$BAC