

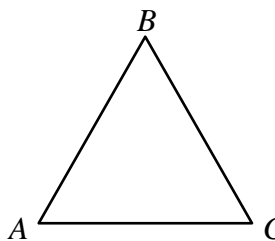
Geometry Chapter 4 Practice Worksheet

Name :

Work together, but everyone turns one in. These must be turned in by the end of the class period.

1. Complete the statement using one of the following words: always, sometimes, or never. "An isosceles triangle is _____ an obtuse triangle."

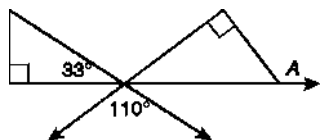
4. For the triangle below, $\triangle ABC \cong \triangle CAB$. What type of triangle must $\triangle ABC$ be? Explain.



2. Draw and identify a triangle with angle measures of 45° , 45° , and 90° .

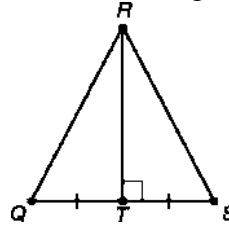
5. If $\triangle ABC \cong \triangle GHJ$ and $\triangle DEF \cong \triangle GHJ$, then $\triangle ABC \cong \triangle DEF$. What property of congruence does this statement represent?

3. Find the measure of exterior angle A.



6. If $\triangle RPQ \cong \triangle JKL$, then $\overline{LJ} \cong$ _____ .

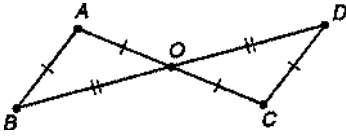
8. Refer to the figure below.



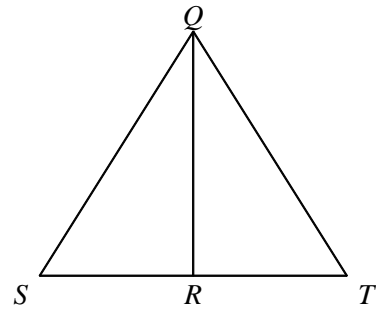
A. Is $\overline{QR} \cong \overline{SR}$? If so, why?

B. What type of triangle is $\triangle QRS$?

7. State the postulate or theorem that can be used to conclude that $\triangle OCD \cong \triangle OAB$.

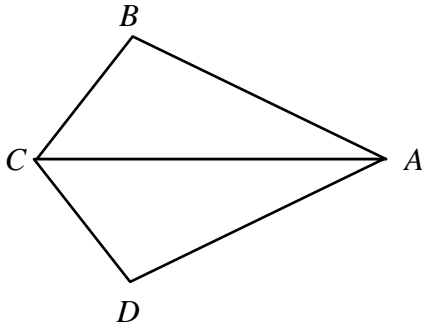


9. You are cutting two triangles for a mobile. The triangles should balance each other. You bisect the angle with \overline{QR} . If you make $QS = QT$, prove $\triangle QRS \cong \triangle QRT$.



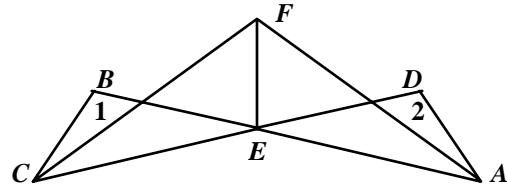
10. Given: $\angle BAC \cong \angle DAC$, $\angle B \cong \angle D$

Prove: $\overline{BC} \cong \overline{DC}$



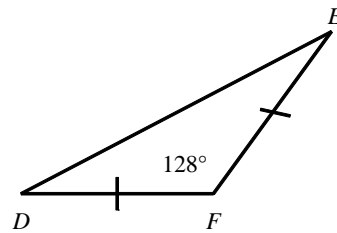
12. Given: $\overline{BC} \cong \overline{DA}$, $\angle 1 \cong \angle 2$, and $\overline{CF} \cong \overline{AF}$

Prove: $\triangle CEF \cong \triangle AEF$

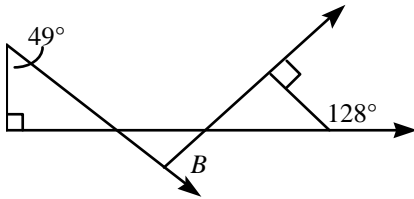


11. Do theorems require proofs? Explain.

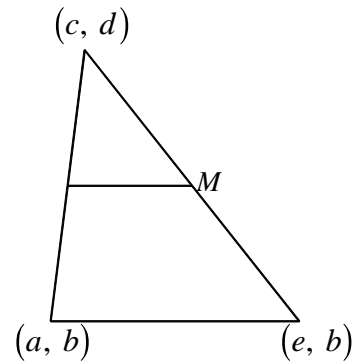
13. Use information in the figure below to find $m\angle D$.



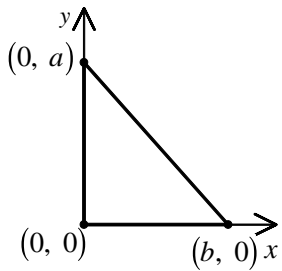
14. Find the measure of $\angle B$.



16. Using the diagram, give the coordinates of M if it is a midpoint.



15. A right triangle is placed in a convenient position on the first quadrant of a coordinate plane. If $a = 4$ and $b = 5$, find the distance between $(0, a)$ and $(b, 0)$.



17. Given the points $P(-6, -8)$, $Q(10, 22)$, and $M(2, 7)$, prove that M is the midpoint of \overline{PQ} .