

Practice Worksheet for Lesson 3-4 (Part I)

Name:

Mailbox #:

Use the given diagram to answer the following.

<p>1) Name an isosceles triangle that is not equilateral.</p> <p>2) Name a right triangle</p> <p>3) Name a scalene triangle</p> <p>4) Name an acute triangle</p>	
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Use the given diagram to answer the following.

<p>5) If <math>\overline{AB} \cong \overline{AD}</math>, then <math>\triangle ABD</math> is a(n) _____ triangle.</p> <p>6) If <math>m\angle 5 = 118</math>, then <math>\triangle BDC</math> is a(n) _____ triangle.</p> <p>7) If <math>\triangle ABD</math> is an equilateral triangle, <math>m\angle 3 =</math> _____.</p>	
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Complete each statement with *always*, *sometimes*, or *never*.

8) If a triangle is isosceles, then it is \_\_\_\_\_ equilateral.

9) If a triangle is equilateral, then it is \_\_\_\_\_ isosceles.

10) If a triangle is scalene, then it is \_\_\_\_\_ isosceles.

11) If a triangle is obtuse, then it is \_\_\_\_\_ isosceles.

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12) The lengths of the sides of a triangle are  $4n$ ,  $2n + 10$ , and  $7n - 15$ . Is there a value of  $n$  that makes the triangle equilateral? Explain.

13) The lengths of the sides of a triangle are  $3t$ ,  $5t - 12$ , and  $t + 20$ .

a) find the value(s) of  $t$  that make the triangle isosceles.

b) is there any value of  $t$  that would make the triangle equilateral? Explain.