

Practice Worksheet for Lesson 8-3

Name:

Mailbox #:

Tell whether a triangle with the given side lengths is acute, right, or obtuse. Show your work!

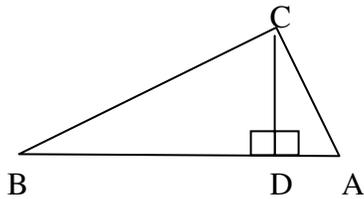
1) 11, 11, 15

2)  $8, 8\sqrt{3}, 16$

3) 8, 14, 17

4) 0.5, 1.2, 1.3

Use the information (with the given diagram) and the Pythagorean Theorem to decide if  $\triangle ABC$  is acute, right, or obtuse. Show all your work!



5)  $AC = 13, BC = 15,$  and  $CD = 12$

6)  $AC = 10, BC = 17,$  and  $CD = 8$

7)  $AC = 13, BC = \sqrt{34},$  and  $CD = 3$

8)  $AD = 2, DB = 8,$  and  $CD = 4$

9) The sides of a triangle have lengths  $x$ ,  $x + 4$ , and 20. Specify those values of  $x$  for which the triangle would be acute with the longest side having the length of 20.

10) Given parallelogram  $RSTU$ , with diagonals intersecting at  $M$ . If  $RS = 9$ ,  $ST = 20$ , and  $RM = 11$ . Which segment is longer, segment  $SM$  or segment  $RM$ ?

11) Given parallelogram  $EFGH$  with  $EF = 13$ ,  $EG = 24$ , and  $FH = 10$ . What type of parallelogram is  $EFGH$  (ex. rectangle, square, rhombus)?