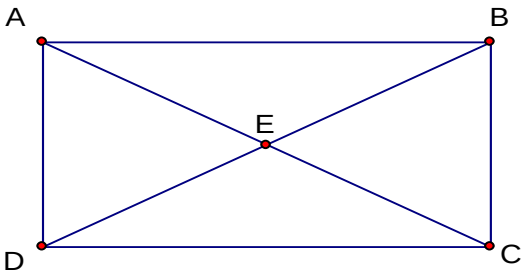
6.4 Rectangles

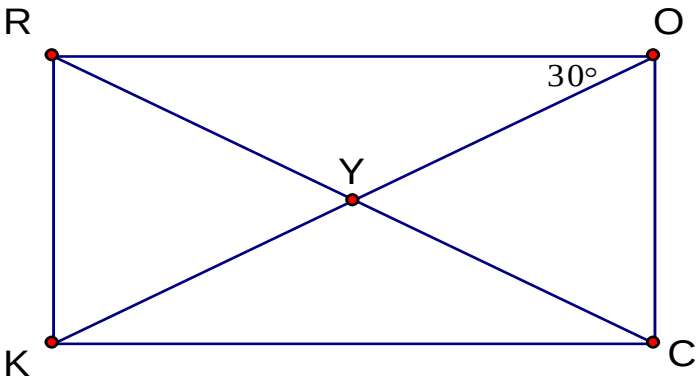
def - rectangle - a parallelogram with 4 right angles.

Th'm 6.13 – A rectangle has congruent diagonals.

1) In this rectangle DE = 5x – 3 and EC = 4x + 6 then find DB.



2) Write all the angle measures in this rectangle.



3) Find the diagonal length of this television.

4) A contractor has been hired to pour a rectangular concrete patio.
How can he be sure that the frame in which he will pour the concrete is rectangular?

5) WXYZ has vertices W(2, 4), X(-2, 0), Y(-1, -7), and Z(9, 3). Show all work.

a) Make a rough sketch.

b) Give the length WY.

c) Write the length XZ.

d) Find the midpoint of $\overline{WY}$.

e) Determine the midpoint of $\overline{XZ}$.

f) How can you tell if it's a rectangle or not according to the above answers.

6) A rectangular playground is surrounded by an 80-foot fence. One side of the playground is 10 feet longer than the other. Which of the following equations could be used to find s, the shorter side of the playground?

A) 10s + s = 80

B) 4s + 10 = 80

C) 2(s + 10) + 2s = 80

D) s(s+10) = 80