Problem of the Week Problem D Can You C It?

The line with equation $y = -\frac{3}{4}x + 18$ crosses the positive x-axis at point B and the positive y-axis at point A. The origin, O, and points A and B form the vertices of a triangle.

Point C(r, s) lies on the line segment AB such that the area of $\triangle AOB$ is three times the area of $\triangle COB$.

Determine the values of r and s.

