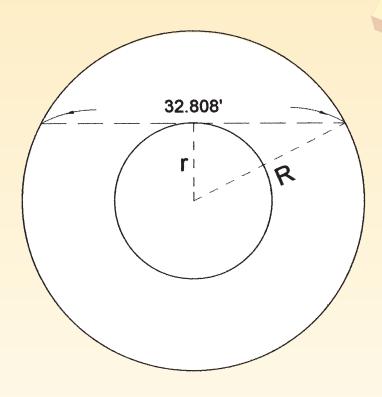


## Solution to Problem 31



Area = pi  $R^2$  - pi  $r^2$  = pi ( $R^2$  -  $r^2$ ) but,  $R^2$  = 16.404<sup>2</sup> +  $r^2$ , so Area = (16.404<sup>2</sup> +  $r^2$  -  $r^2$ ) = 16.404<sup>2</sup> pi = 845.375 sq. ft. (This is equivalent to shrinking both circles until the smaller one is zero. The radius is then 16.404', as above. It doesn't matter what the two original radii were.)