Mathematics 172

Quiz #1 Name: Key

You must show your work to get full credit.

1. Recall that the surface area of a ball of radius r cm is

$$A(r) = 4\pi r^2 \text{ cm}^2.$$

What happens to the surface area of ball if the radius is multiplied by 2.3? Write the answer in term of $A(r)$, that is somthing like $A(2.3r) = (\text{Some number})A(r)$.

$A(2.3r) = 4\pi(2.3r)^2$
$= 4\pi(2.3)^2 r^2$
$= (2.3)^2 4\pi r^2$
$= 5.29\, A(r)$

$A(2.3r) =$ 5.29 A(r)

Draw a figure showing that if in following parallelogram, if both sides lenghs are doubled, then the area is mutiplied by 4.