

## Honors Problem #2

### due Friday, September 2, 2005

In an equilateral triangle,  $\triangle ABC$ ,  $P$  is the midpoint of  $\overline{AB}$ ,  $\overline{PR} \perp \overline{BC}$ , and  $\overline{PQ} \perp \overline{AC}$ , where points  $R$  and  $Q$  are on  $\triangle ABC$ . If the area of  $\triangle ABC = 32 \text{ cm}^2$ , what is the area of  $\triangle PRQ$ ?