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$\qquad$

Find the geometric mean for each pair of numbers.

1. 5 and 20
2. $\frac{5 \sqrt{3}}{2}$ and $\frac{\sqrt{3}}{2}$

Use the following diagram. Find $x, y, z$ without using the Pythagorean Theorem.
3. Altitude $\mathrm{x}=$

4. $\operatorname{Leg} \mathrm{y}=$
5. $\operatorname{Leg} \mathrm{z}=$
6. Does $\sqrt{3}, \sqrt{8}, \sqrt{11}$ constitute a Pythagorean triple? Why or why not?

Use the following diagram to find $x$ and $y$.
7. $x=$
8. $y=$

9. The length of a diagonal of a square is $30 \sqrt{2}$.
a. What is the length of the square's side?
b. What is the perimeter of the square? (Hint: draw the square and diagonal.)
10. Give the 3 trigonometric ratios for $<\mathrm{A}$.

$\sin \mathrm{A}=$ $\qquad$ $\cos \mathrm{A}=$ $\qquad$
$\tan \mathrm{A}=$ $\qquad$

