## Geometry

8.1 Geometric Mean

1) Find $x, y$, and $z$.


Date $\qquad$ Hour $\qquad$
2) A photographer wants to take a picture of a beach front. His camera has a viewing angle of $90^{\circ}$ and he wants to make sure two palm trees located at A and B are just inside the edges of the photo. He walks out on a pier to get the shot. At what distance down the walkway should he stop to take the picture?

3) A museum has a statue on display. The curator places the statue in the corner of a rectangular room and puts a 15 foot railing as shown. Use the information in the picture to find how close visitors will be able to get to the statue.

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4) Pete is building a shed with a roof that comes to a peak at a right angle. Each side of the roof is 12 feet. How wide is the building? How tall is the triangle forming the roof?


