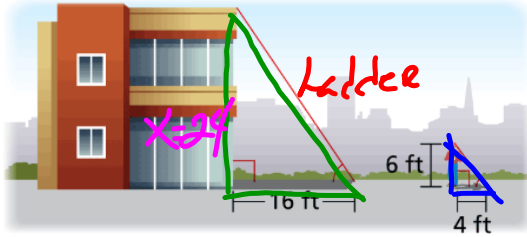


**USING RATIOS** A repairman needs to climb to the top of a building. He takes the measurements shown. The right triangles created by each object and its shadow are similar. Can he use a ladder that reaches heights of up to 28 feet?

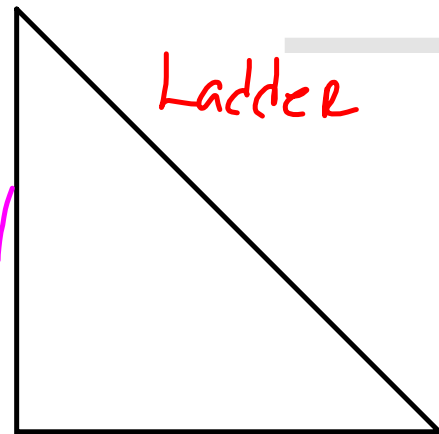


$$\frac{x}{16} = \frac{6}{4}$$

$$\rightarrow \frac{4x}{4} = \frac{96}{4}$$

$$x = 24$$

NO, Can't use  
a 28 foot ladder



$$a^2 + b^2 = c^2$$

$$24^2 + 16^2 = c^2$$

$$576 + 256 = c^2$$

$$832 = c^2$$

$$8\sqrt{13} = c$$

$$28.84 \approx c$$