

# TOC pg 88 U5- Geometric Mean

## GEOMETRIC MEAN $\left( \frac{a}{x} = \frac{x}{b} \right)$

Between 2 numbers

a)  $7 \propto 28$

$$\frac{7}{x} = \frac{x}{28}$$

$$\sqrt{x^2} = \sqrt{196}$$

$$x = 14$$

b)  $1 \propto 36$

$$\frac{1}{x} = \frac{x}{36}$$

$$\sqrt{x^2} = \sqrt{36}$$

$$x = 6$$

c)  $10 \propto 40$

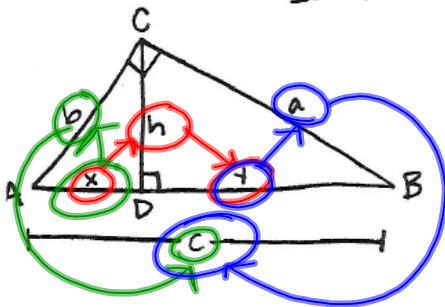
$$\frac{10}{x} = \frac{x}{40}$$

$$\sqrt{x^2} = \sqrt{400}$$

$$x = 20$$

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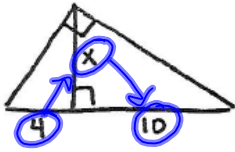
In RIGHT  $\Delta$ 's



$$\frac{x}{h} = \frac{h}{y} \quad \frac{x}{b} = \frac{b}{c} \quad \frac{y}{a} = \frac{a}{c}$$

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Ex. 1



$$\frac{4}{x} = \frac{x}{10}$$

$$\sqrt{x^2} = \sqrt{40}$$

$$x = 2\sqrt{10}$$

$$x = 6.32$$

Ex. 2



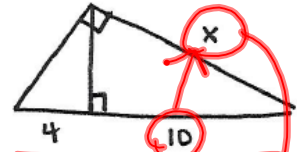
$$\frac{4}{x} = \frac{x}{14}$$

$$\sqrt{x^2} = \sqrt{56}$$

$$x = 2\sqrt{14}$$

$$x = 7.48$$

Ex. 3



$$\frac{10}{x} = \frac{x}{4}$$

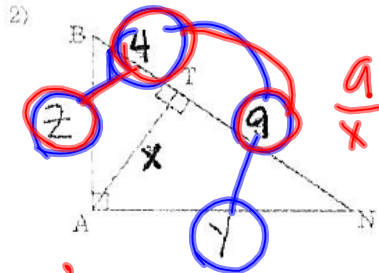
$$\sqrt{x^2} = \sqrt{40}$$

$$x = 2\sqrt{10}$$

$$x = 6.32$$

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Find the missing value "x" below:



$$\frac{4}{x} = \frac{x}{9}$$

$$x = 6$$

$$z = 7.21$$

$$\frac{9}{y} = \frac{y}{13}$$

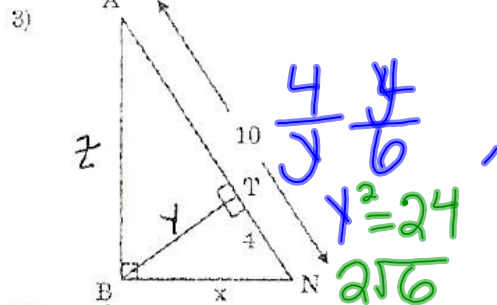
$$\frac{117}{3\sqrt{13}}$$

$$10.81$$

$$\frac{4}{z} = \frac{z}{13}$$

$$\frac{52}{2\sqrt{13}}$$

$$7.21$$



$$\frac{4}{y} = \frac{y}{6}$$

$$y^2 = 24$$

$$2\sqrt{6}$$

$$x = 6.32$$

$$z = 7.74$$

$$\frac{4}{x} = \frac{x}{10}$$

$$x^2 = 40$$

$$x = 2\sqrt{10}$$

$$6.32$$

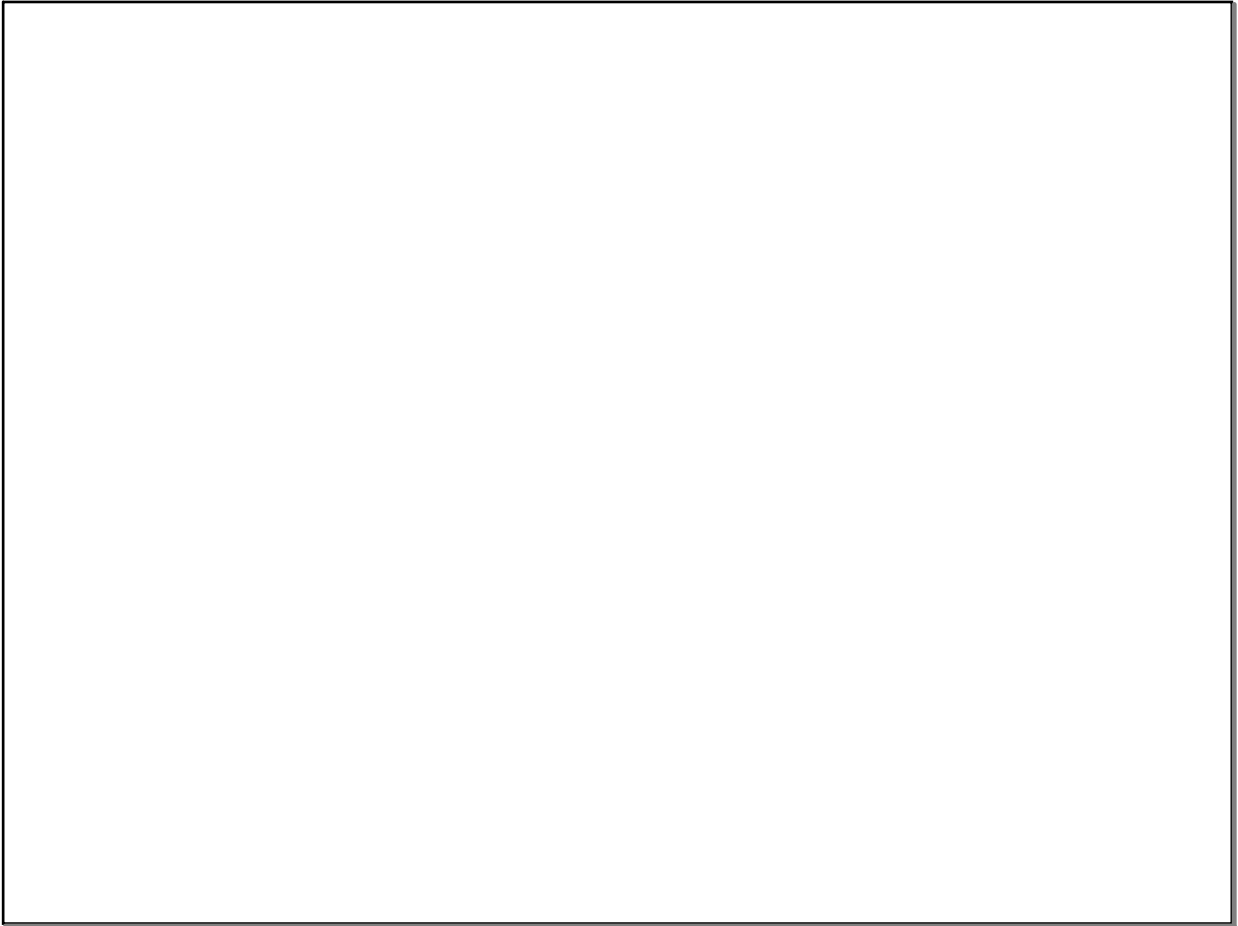
$$\frac{6}{z} = \frac{z}{10}$$

$$z^2 = 30$$

$$z = \sqrt{30} = 5.47$$

$$7.74$$

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Nov 14-11:42 AM