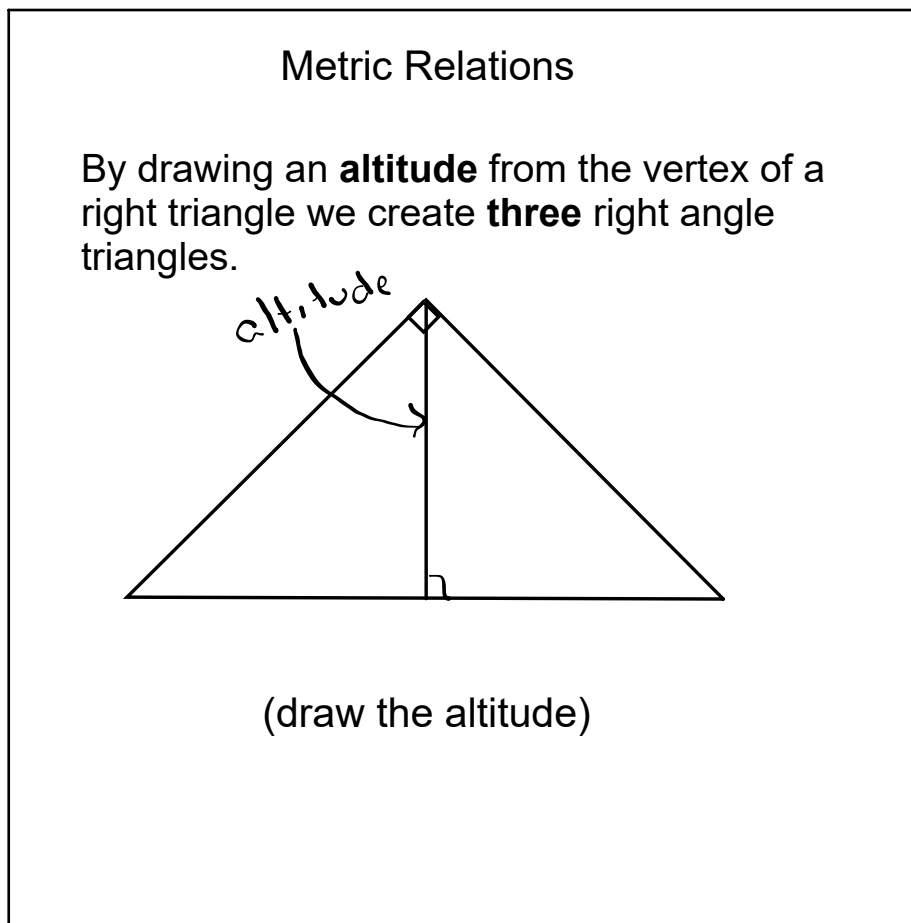


Mar 23-11:58 PM



Dec 8-11:09 AM

note the  $90^\circ$  angle here

Can you name all 3 triangles?

note the  $90^\circ$  angles here

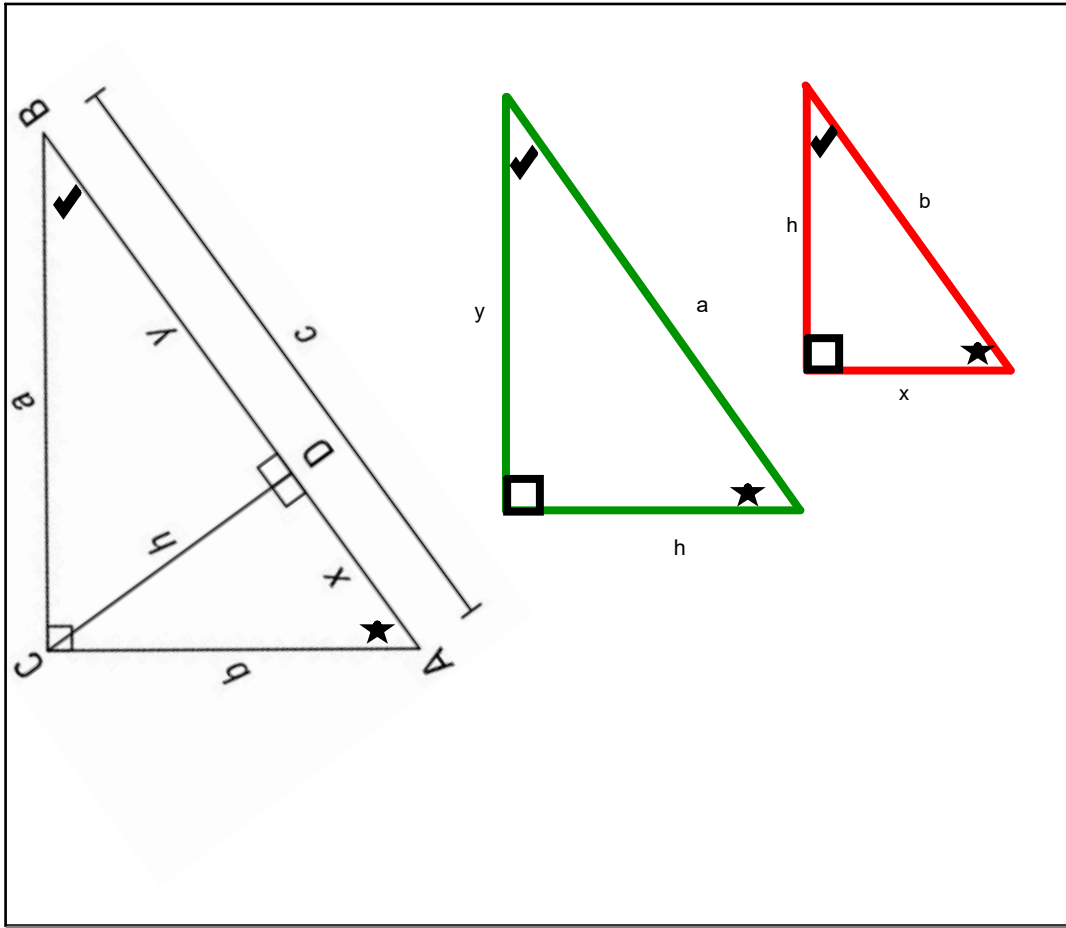
Are they similar?

Apr 12-12:39 PM

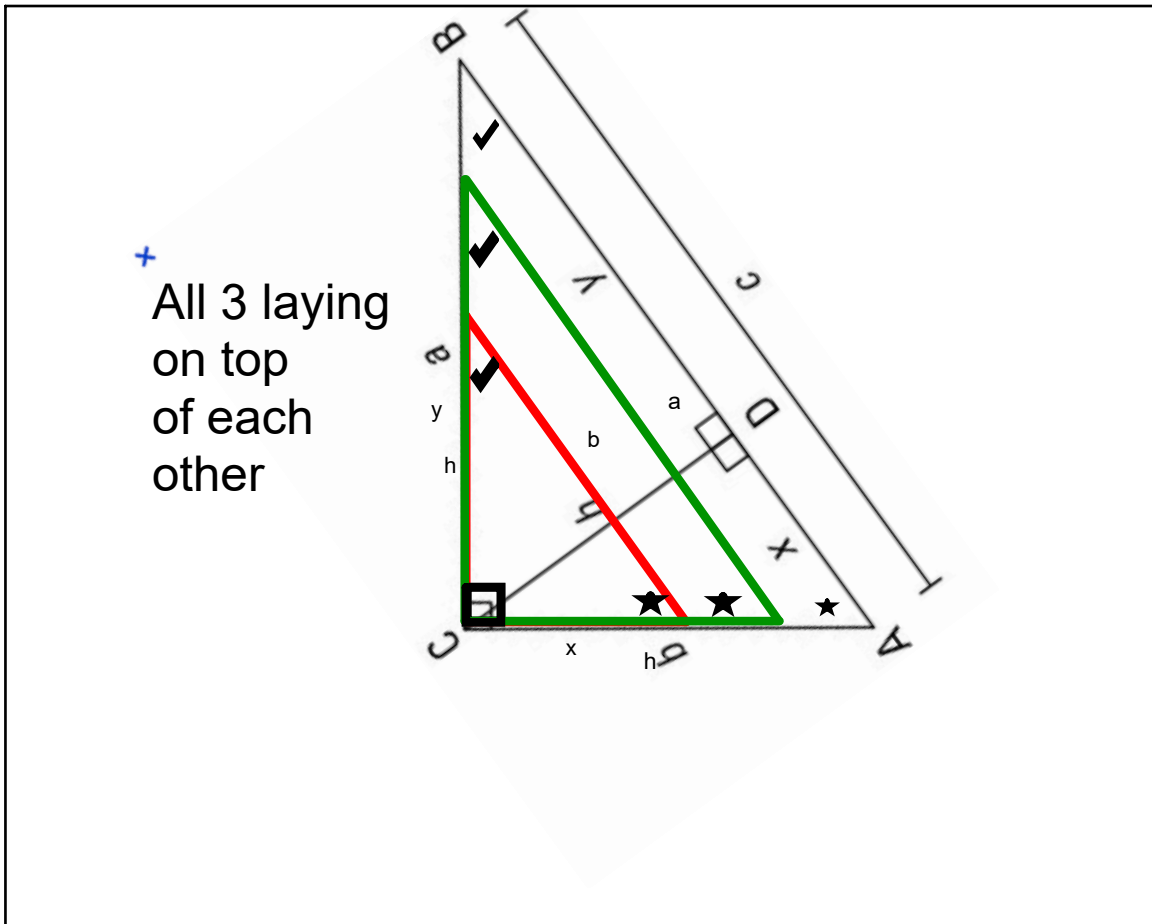
let's break this BIG triangle up into the three SIMILAR triangles

Be sure the ORIENT them in the same way...like this

Mar 24-12:14 AM

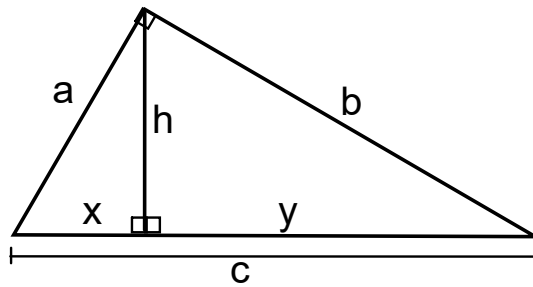


Mar 24-12:14 AM



Mar 24-12:14 AM

### Finding a missing measure



$$a^2 = x \cdot c$$

$$b^2 = y \cdot c$$

$$h^2 = x \cdot y$$

$$a \cdot b = h \cdot c$$

NB: You can only solve an equation if you have 1 unknown.

&lt;

Hint

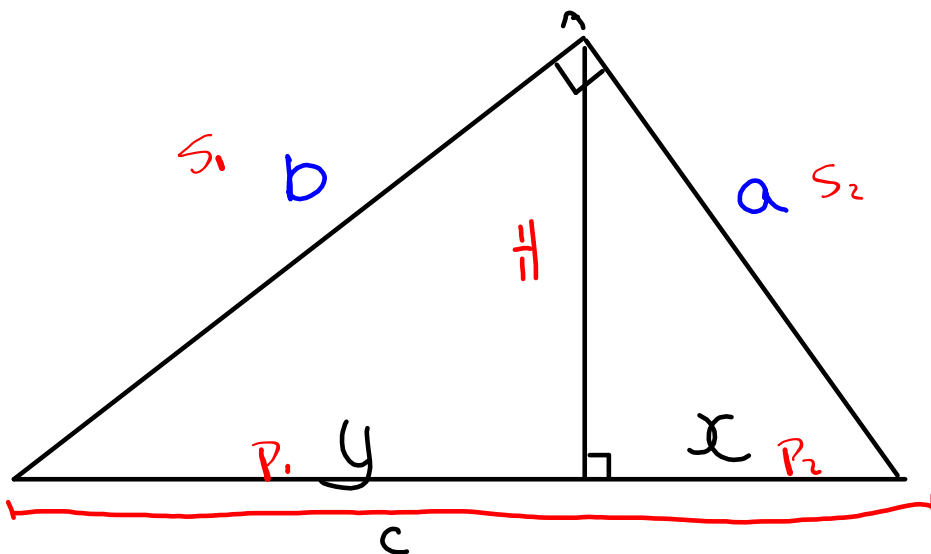
Don't forget **Pythagoras!**

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

Nov 23-6:06 PM

### Label the right angle triangle

(a,b,c,h,x,y)



Always label first and then solve

Dec 8-11:13 AM

Another way to label the triangle

$$a^2 = y \cdot c \quad S_1^2 = p_1 \cdot hyp$$

$$b^2 = x \cdot c \quad S_2^2 = p_2 \cdot hyp$$

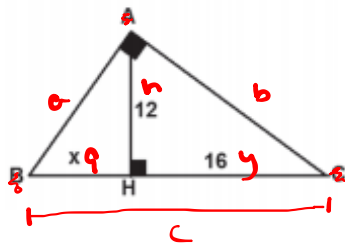
$$h^2 = x \cdot y \quad alt^2 = p_1 \cdot p_2$$

$$a \cdot b = h \cdot c \quad S_1 \cdot S_2 = alt \cdot hyp$$

Pythagoras!  
 $b^2 = c^2$

Apr 12-9:56 PM

**1** Find the side  $\overline{BH}$  in the diagram below.



$$a^2 = x \cdot c$$

$$b^2 = y \cdot c$$

$$h^2 = x \cdot y$$

$$a \cdot b = h \cdot c$$

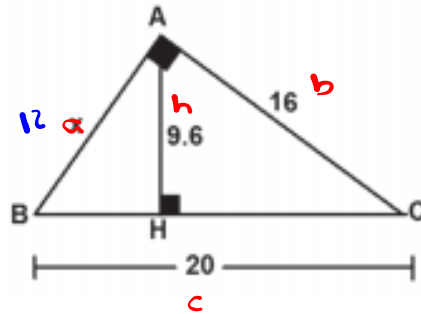
$$h^2 = x \cdot y$$

$$12^2 = x(16)$$

$$\frac{144}{16} = \frac{16x}{16}$$

$$9 = x$$

2 Find the side  $\overline{AB}$  in the diagram below.

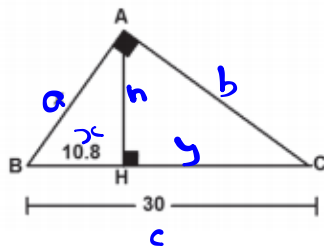


$$\begin{aligned}
 a \cdot b &= h \cdot c \\
 a(16) &= 9.6(20) \\
 \cancel{16}a &= \frac{192}{\cancel{16}} \\
 a &= 12
 \end{aligned}$$

$$\begin{aligned}
 a^2 &= x \cdot c \\
 b^2 &= y \cdot c \\
 h^2 &= x \cdot y \\
 a \cdot b &= h \cdot c
 \end{aligned}$$

Dec 8-11:19 AM

3 Find the side  $\overline{AB}$  in the diagram below.

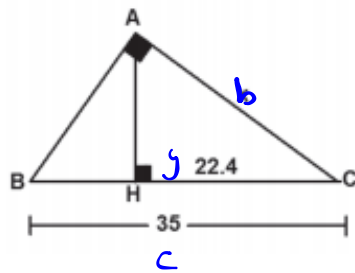


$$\begin{aligned}
 a^2 &= x \cdot c \\
 a^2 &= 10.8(30) \\
 \sqrt{a^2} &= \sqrt{324} \\
 a &= 18
 \end{aligned}$$

$$\begin{aligned}
 \rightarrow a^2 &= x \cdot c \\
 b^2 &= y \cdot c \\
 h^2 &= x \cdot y \\
 a \cdot b &= h \cdot c
 \end{aligned}$$

Dec 8-12:03 PM

4 Find the side  $\overline{AC}$  in the diagram below.



$$b^2 = y \cdot c$$

$$b^2 = 22.4(35)$$

$$b = 28$$

$$a^2 = x \cdot c$$

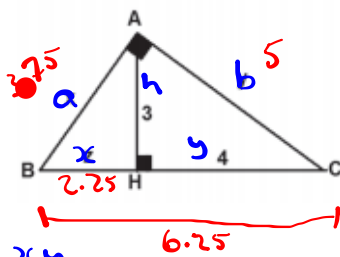
$$b^2 = y \cdot c$$

$$h^2 = x \cdot y$$

$$a \cdot b = h \cdot c$$

Dec 8-12:04 PM

5 Find the missing side lengths  $x, y,$  and  $z$  in the diagram below.



$$\textcircled{1} h^2 = x \cdot y$$

$$3^2 = x(4)$$

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

$$2.25 = x$$

$$\textcircled{2} c^2 = x \cdot c$$

$$a^2 = 2.25(6.25)$$

$$\sqrt{c^2} = \sqrt{4.0625}$$

$$c = 3.75$$

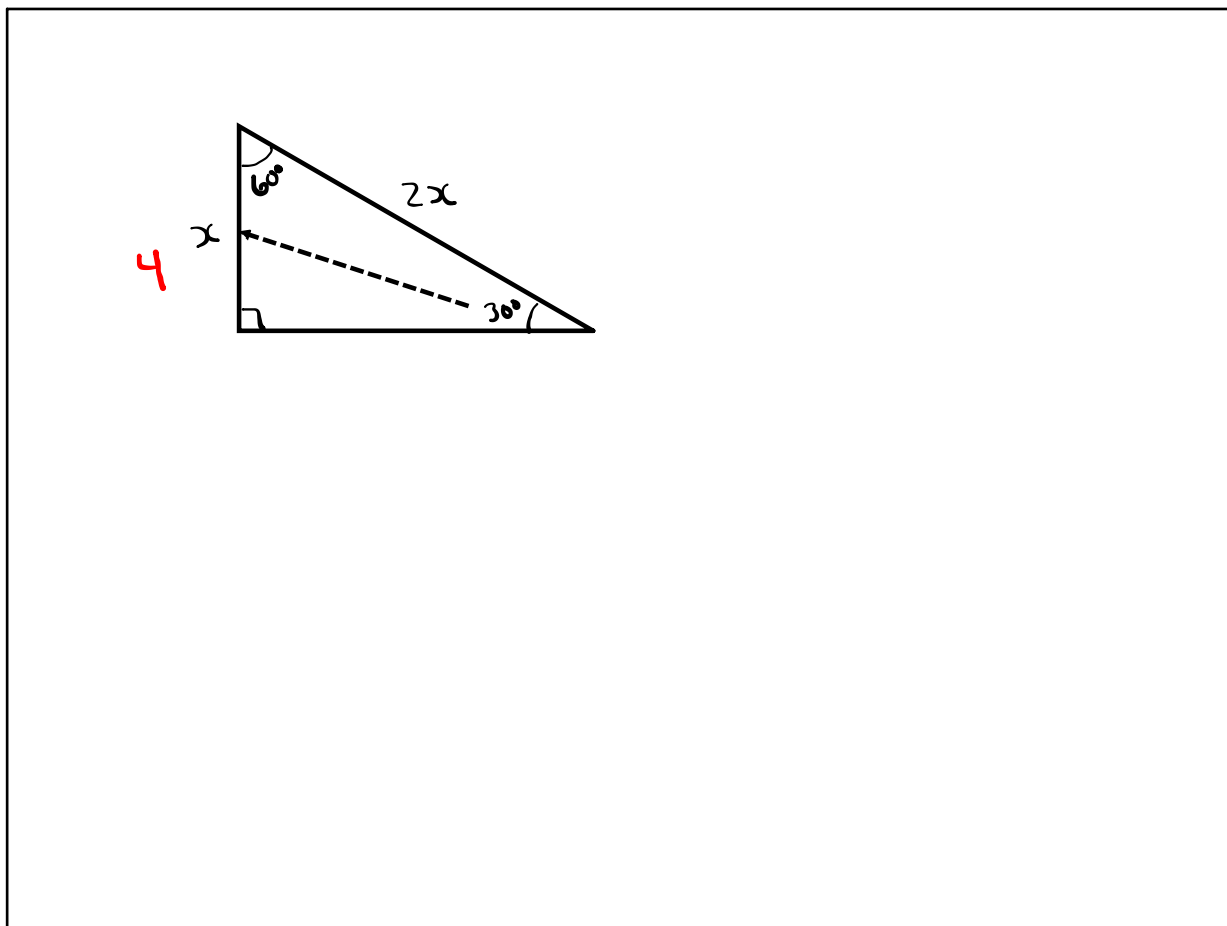
$$a^2 = x \cdot c$$

$$b^2 = y \cdot c$$

$$h^2 = x \cdot y$$

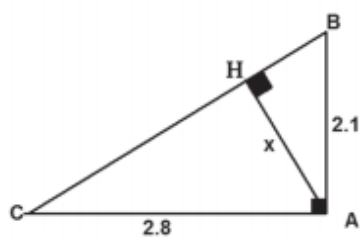
$$a \cdot b = h \cdot c$$

Dec 8-12:04 PM



Nov 29-3:56 PM

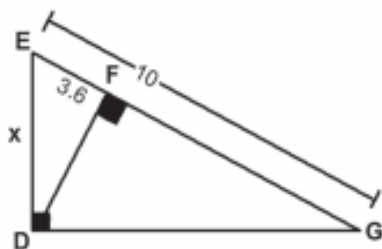
**6** Find  $m\overline{AH}$  in the diagram below.



Dec 8-12:05 PM

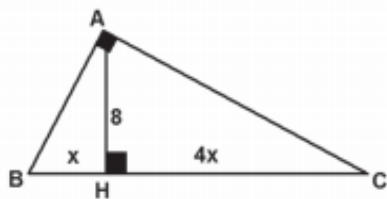


**7** Find  $m\overline{DE}$  in the diagram below.



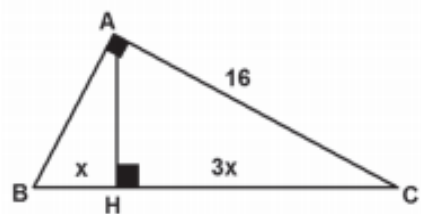
Dec 8-12:05 PM

**8** Find  $m\overline{BH}$  in the diagram below.



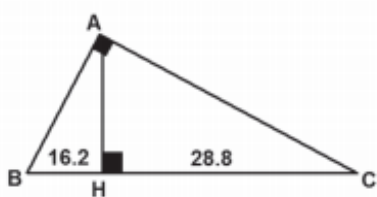
Dec 8-12:05 PM

- 9 Find  $m\overline{BH}$  in the diagram below.

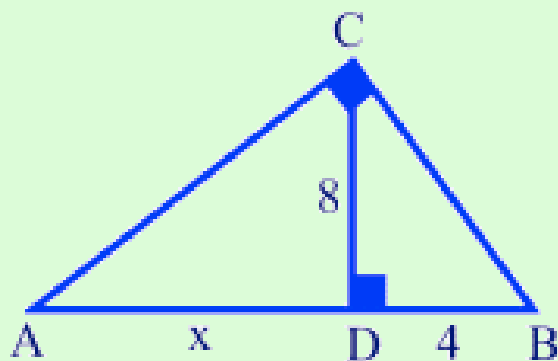


Dec 8-12:05 PM

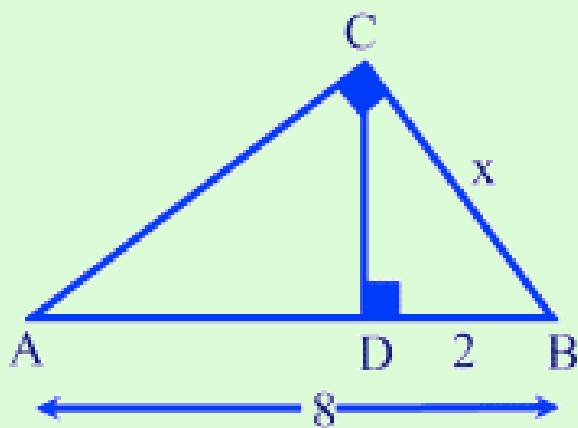
- 10 Find the area of  $\triangle ABC$  in the diagram below.



Dec 8-12:06 PM

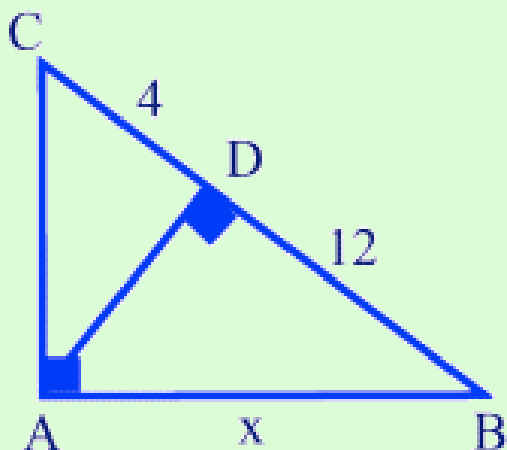
**1. Find  $x$ :**

Apr 12-3:11 PM

**2. Find  $x$ :**

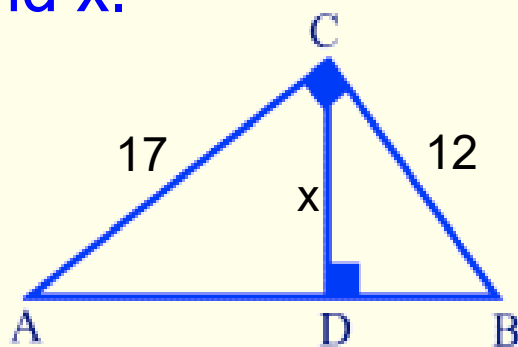
Apr 12-3:12 PM

3. Find  $x$  to nearest tenth:

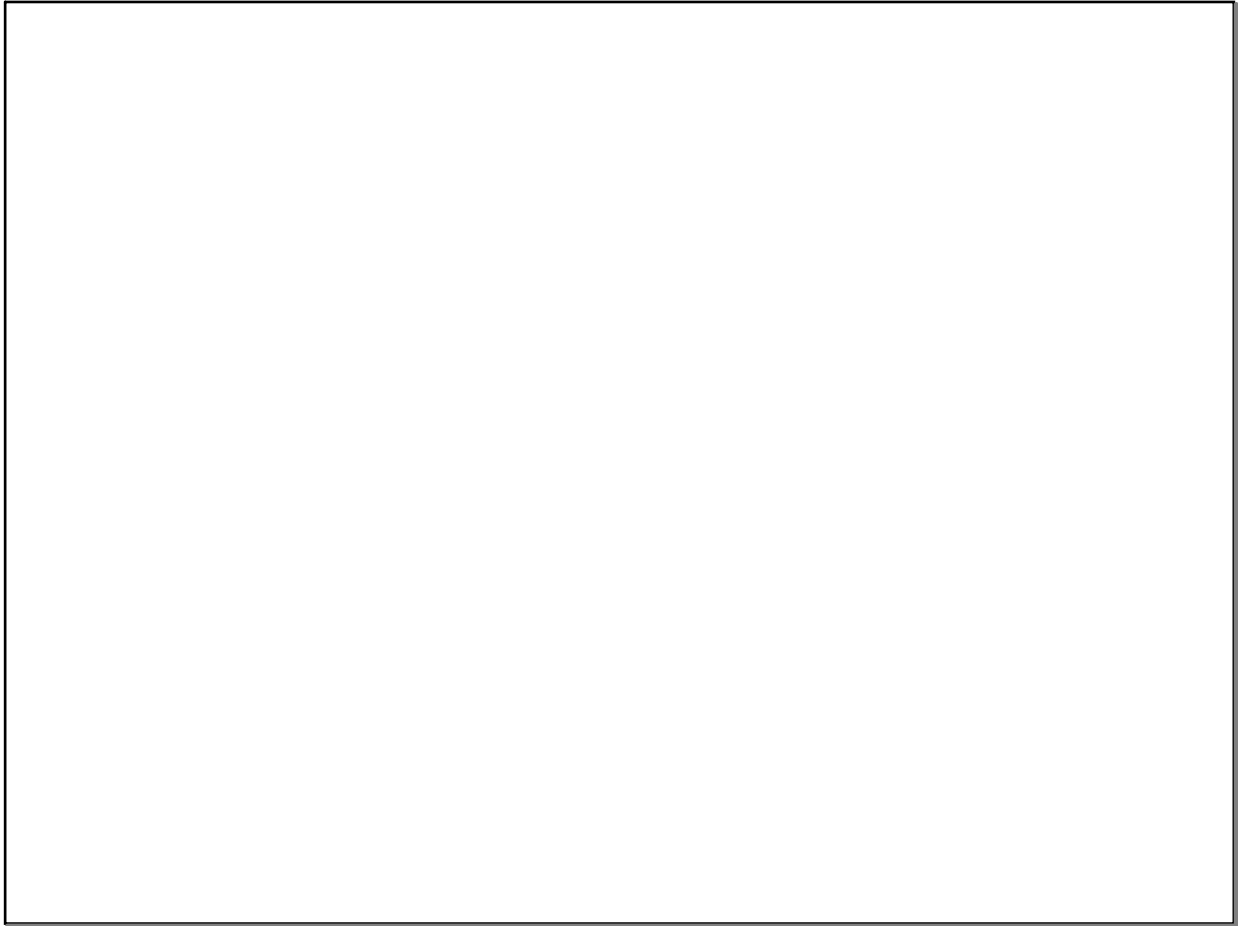


Apr 12-3:14 PM

4. Find  $x$ .



Apr 12-3:26 PM



Apr 12-10:12 PM