Math 4CST – Angles & Similar Triangles Practice
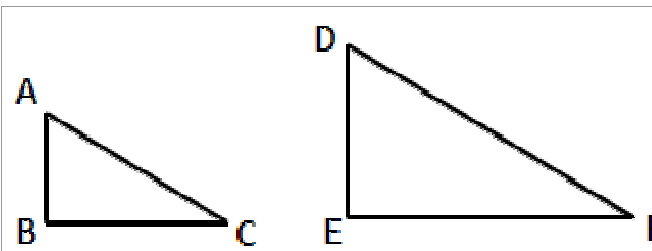* ALWAYS REDRAW overlapping or rotated triangles so that they are in the same position!!!
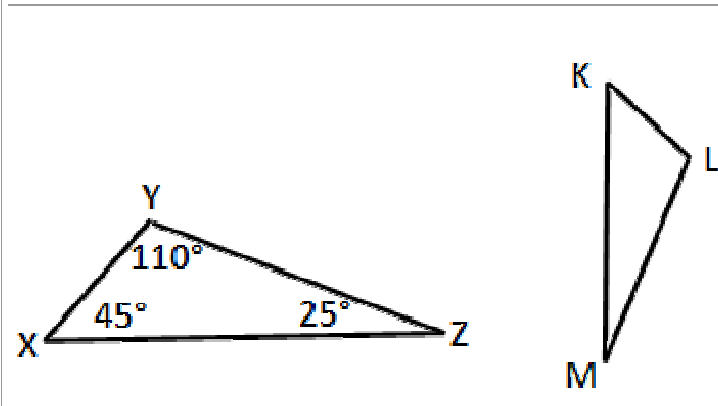1.

∠ABC corresponds to _____

∠BCA corresponds to _____

∠CAB corresponds to _____
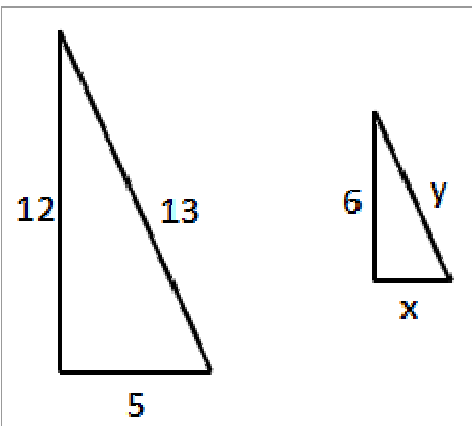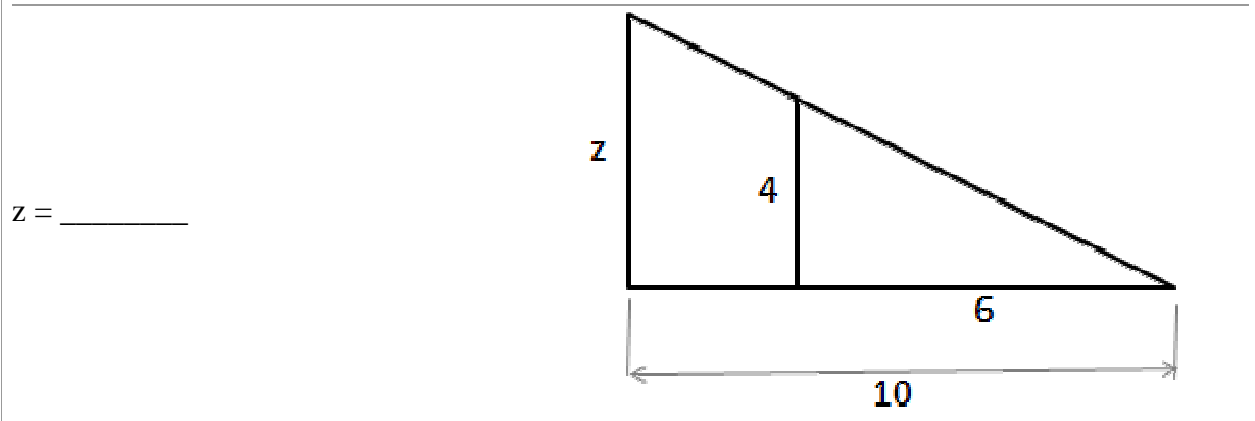
∠ KLM = _____

∠ LMK = _____

∠ MKL = _____

110°

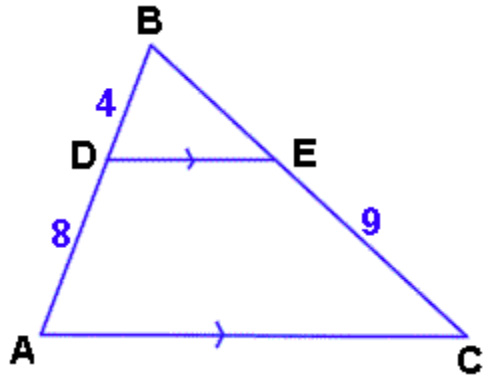45°   25°

y = _____

x = _____

12   13

6   y

x

5
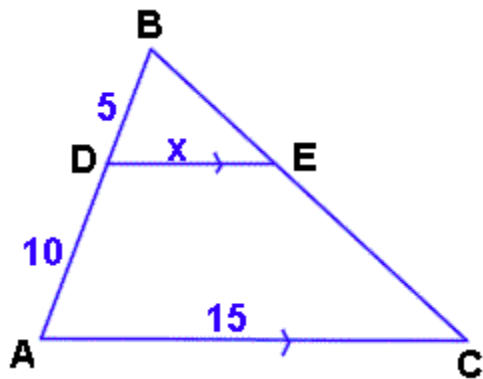
z = _____

z

4

6

10

* ALWAYS REDRAW overlapping or rotated triangles so that they are in the same position!!!

2. Solve for side BE.

B

4

D → **E**

8

9

A →

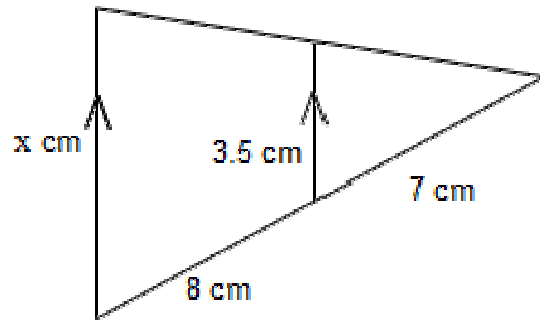**C**

3. Solve for x.
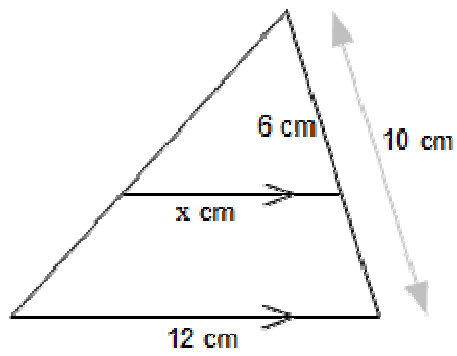
B

5

D X → **E**

10

15

A →

C

4. Calculate and write the *values for x* using the similarity of the triangles shown below.

a)

x cm   3.5 cm

7 cm

8 cm

b)

6 cm   10 cm

x cm

12 cm

c)

11.2 cm

8 cm

x cm

10 cm

d)

4 cm

5 cm

x cm

14 cm

e)

3 cm

3 cm

x cm

12 cm

f)

8 cm

7 cm

x cm

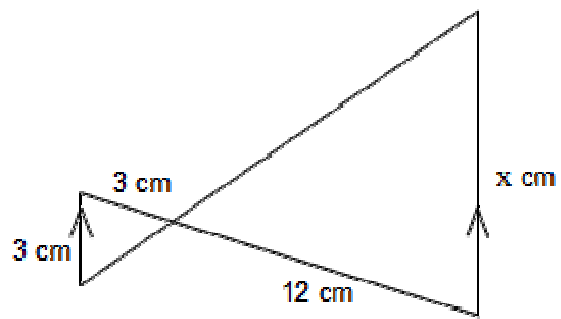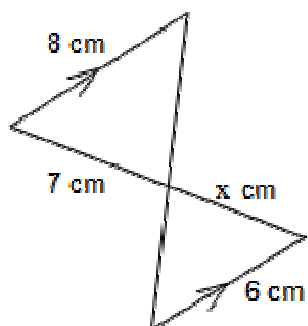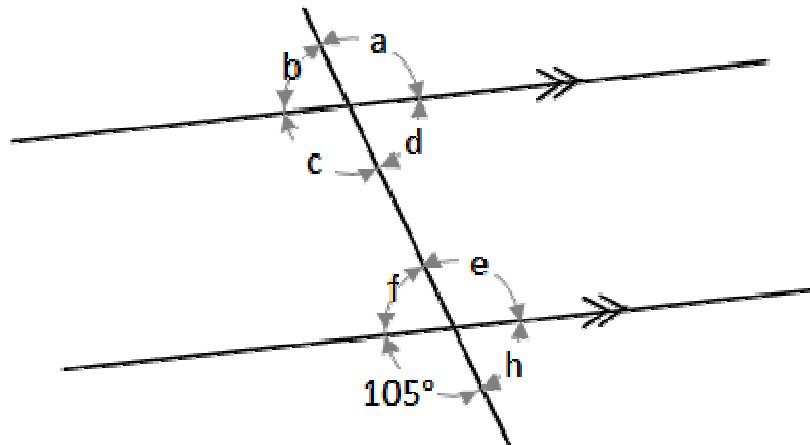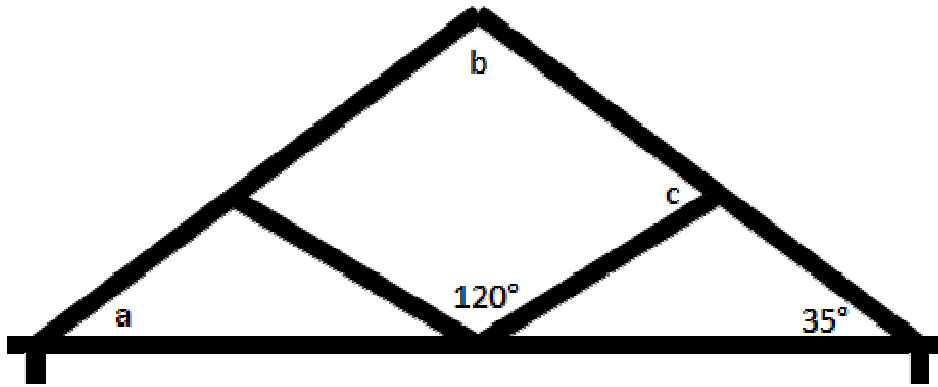6 cm
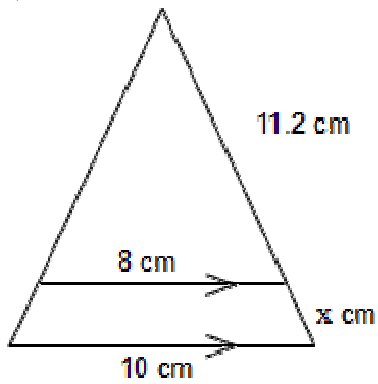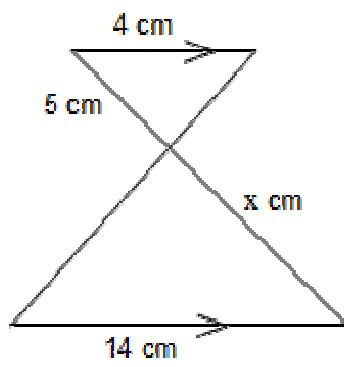
5. Complete the table below to show the values of the missing angles and the basis for your calculations. (note: there may be more than one correct basis for each)

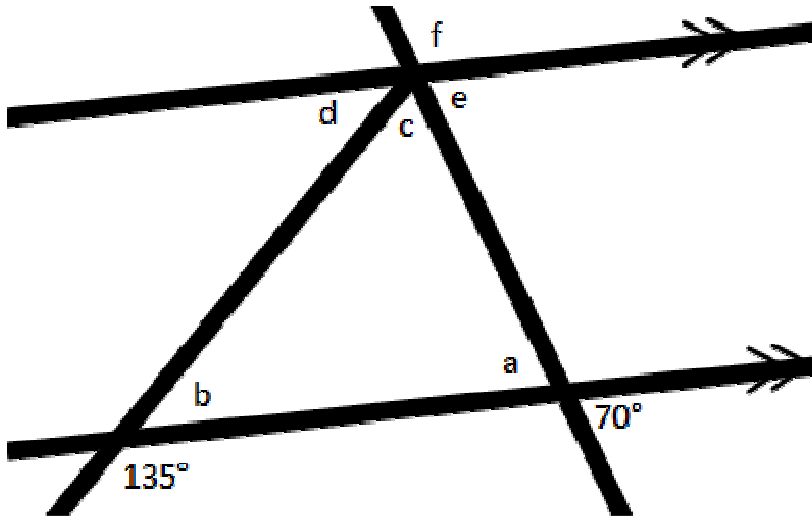| a =		because	
b =		because	
c =		because	
d =		because	
e =		because	
f =		because	
h =		because	

6.

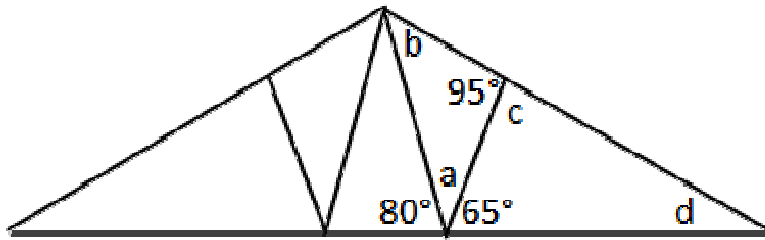**What are the measures of the angles located at positions a, b, & c?**
Note: the figure is symmetrical on the vertical through angle b

7.

What are the measures of the angles located at positions a, b, c, d, e, & f?

8. Use what you know about the sum of the angles in a triangle together with the properties of supplementary angles to calculate the missing angles in the figure below.

a =		because	
b =		because	
c =		because	
d =		because	