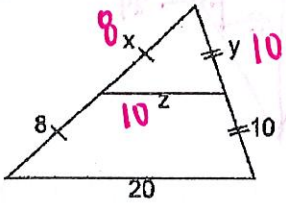
Honors Geometry
Unit 2 Midsegments of Δ's

Name _____

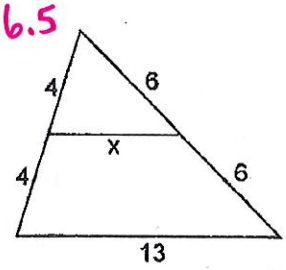
Date _____ Period _____

Directions: Find the values of the variables. You must show all work to receive full credit. Figures are not drawn to scale.

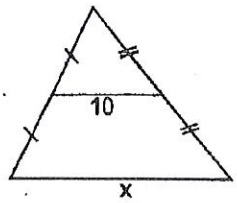
1. x = 8 y = 10 z = 10



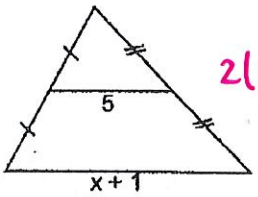
2. x = 13/2 = 6.5



3. x = 20

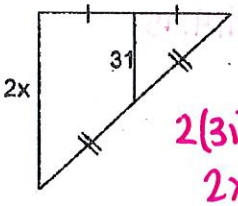


4. x = 9



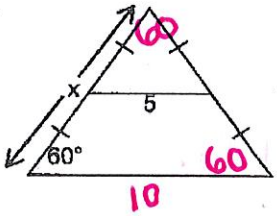
2(5) = x + 1
x + 1 = 10
x = 9

5. x = 31

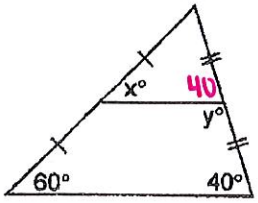


2(31) = 2x
2x = 62
x = 31

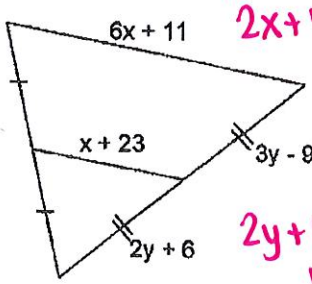
6. x = 10



7. x = 60° y = 140°



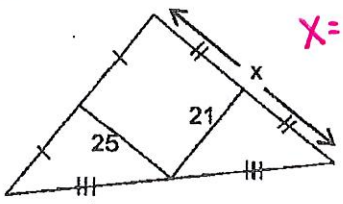
8. x = 35/4 y = 15



2(x + 23) = 6x + 11
2x + 46 = 6x + 11
4x = 35
x = 35/4

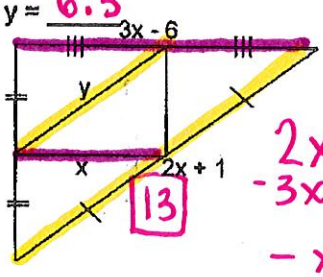
2y + 6 = 3y - 9
y = 15

9. x = 50



x = 2(25)
x = 50

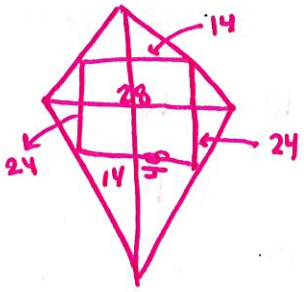
10: x = 6 y = 6.5



2x = 3x - 6
-3x -3x
-x = -6
x = 6

13. Sadie is designing a kite. The diagonals measure 28 in and 48 in. She wants to decorate the midsegments with purple ribbon. How much ribbon must she purchase? Draw a picture!

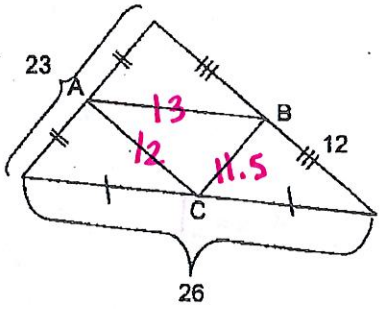
14 + 24 + 14 + 24 = 48 + 28 = 76 in.



14. Find the perimeter of ΔABC.

12 + 13 + 11.5 =

36.5



15. One side of the Rock and Roll Hall of Fame is an isosceles triangle made up of smaller triangles based on midsegments. The length of the base of the building is 229.5 feet. What would the base of the bold triangle be?

≈ 57.4 ft.