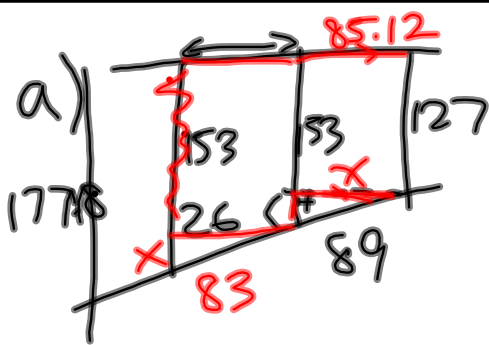


3.a) $x = 14.4$ b) $x = 4$ c) $x = \sqrt{108}$

$$\frac{x}{x+2} = \frac{10}{15} = \frac{15x}{15(x+2)}$$

9.a) $x = 85.12$ b) $x = 79.4$ c) $x = 177.18$ d) $x = 93.06$ e) $x = 27.18$
 204.36



$$15x = 10x + 20$$

$$5x = 20$$

$$x = 4$$

$$26^2 + x^2 = 89^2$$

$$\sqrt{x^2} = \sqrt{7245}$$

$$x = 85.12$$

b) $\frac{85.12}{89} = \frac{x}{83}$

$$x = 79.4$$

$$\frac{7064.96}{89} = \frac{89x}{89}$$

c) $79.4^2 + x^2 = 83^2$

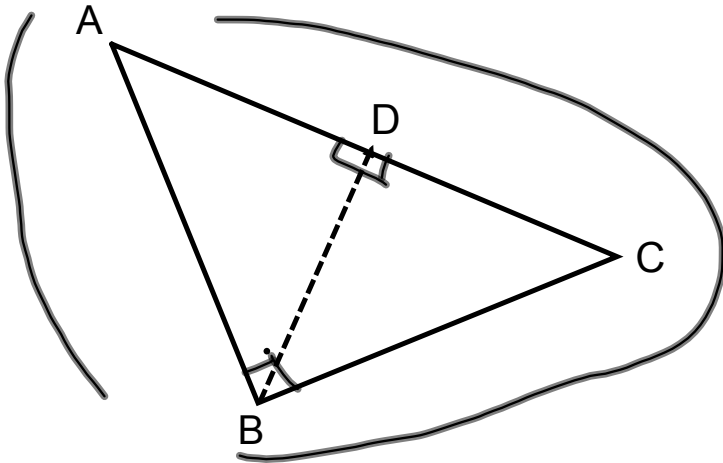
$$x^2 = 584.64$$

$$x = 24.18$$

2nd ave = $24.18 + 153 = 177.18$

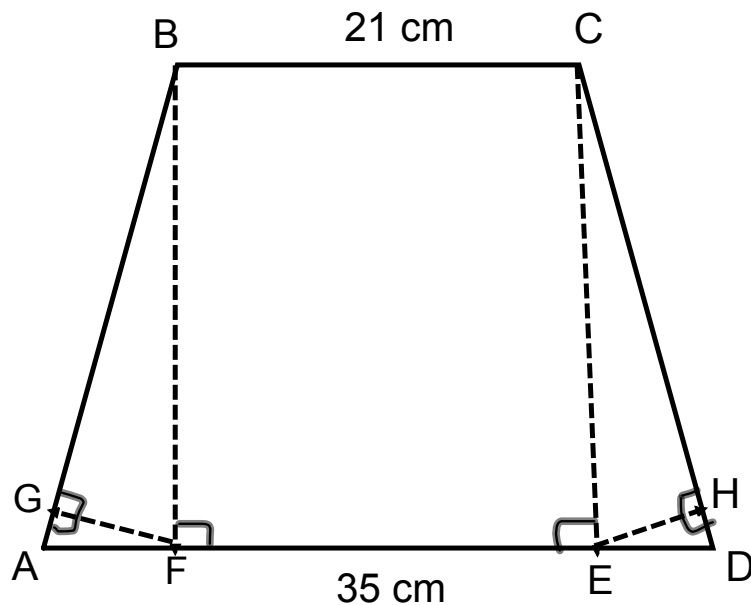
Length of the segments

	mAB	mBC	m AC	m BD	m AD	m CD
1	18	24	30	14.4	10.8	19.2
2	15	20	25	12	9	16
3	12	16	20	9.6	7.2	12.8

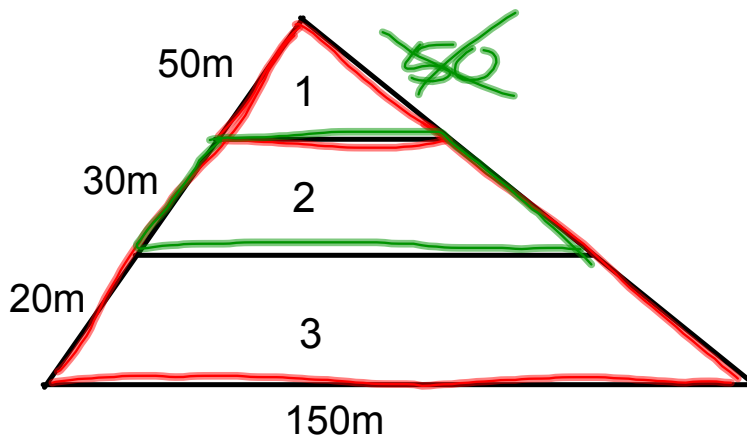


6. A metal worker must bend a piece of aluminum that is in the shape of an isosceles trapezoid for the purpose of creating a ventilation device. As illustrated, the metal worker must bend the piece along the dotted lines BF, CE, FG and EH. The piece of aluminum has a surface area of 672 cm^2 .

- a) What is the distance between points A and G?
- b) What is the total length of the four folds on this piece of aluminum?

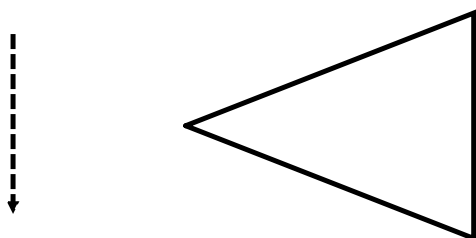


7. A plot of land was divided into three triangular lots using segments parallel to one of its sides. Considering that the perimeter of the 1st lot is 195 m, calculate the perimeter of the other two lots.



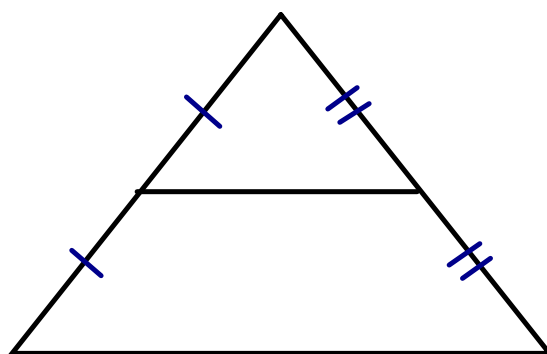
Solving Sides of Similar Triangles

1. Parallel line to one side of any triangle creates a similar triangle.

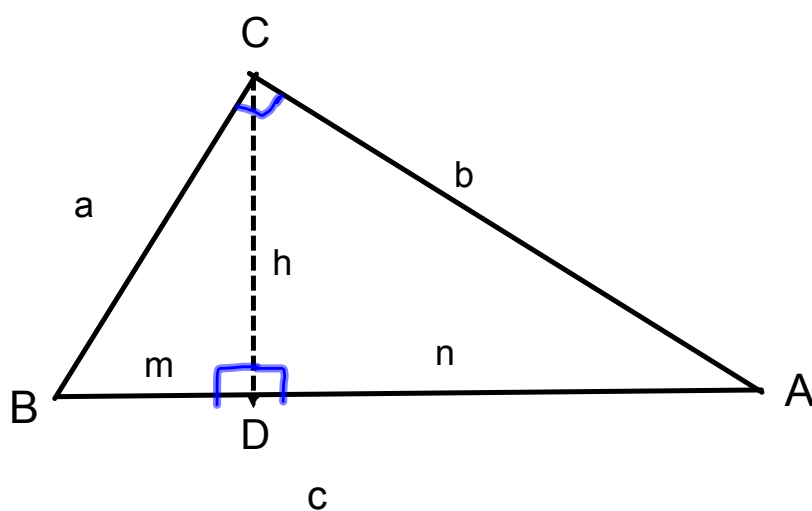


2. Any (line) segment joining the midpoints of 2 sides of a triangle is:

- a) parallel to the third side
- b) half the measure of the third side



3. Metric Relations



$$a^2 = mc$$

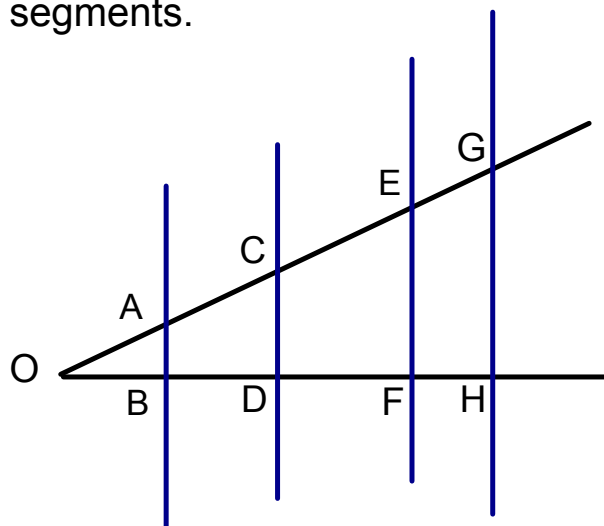
$$h^2 = mn$$

$$b^2 = nc$$

$$ch = ab$$

4. Thales Theorem

Transversals crossing parallel lines are divided into proportional segments.



$$\frac{OA}{OB} = \frac{AC}{BD} = \frac{CE}{DF}$$

Homework: p. 69, 72 # 4, 11, 12