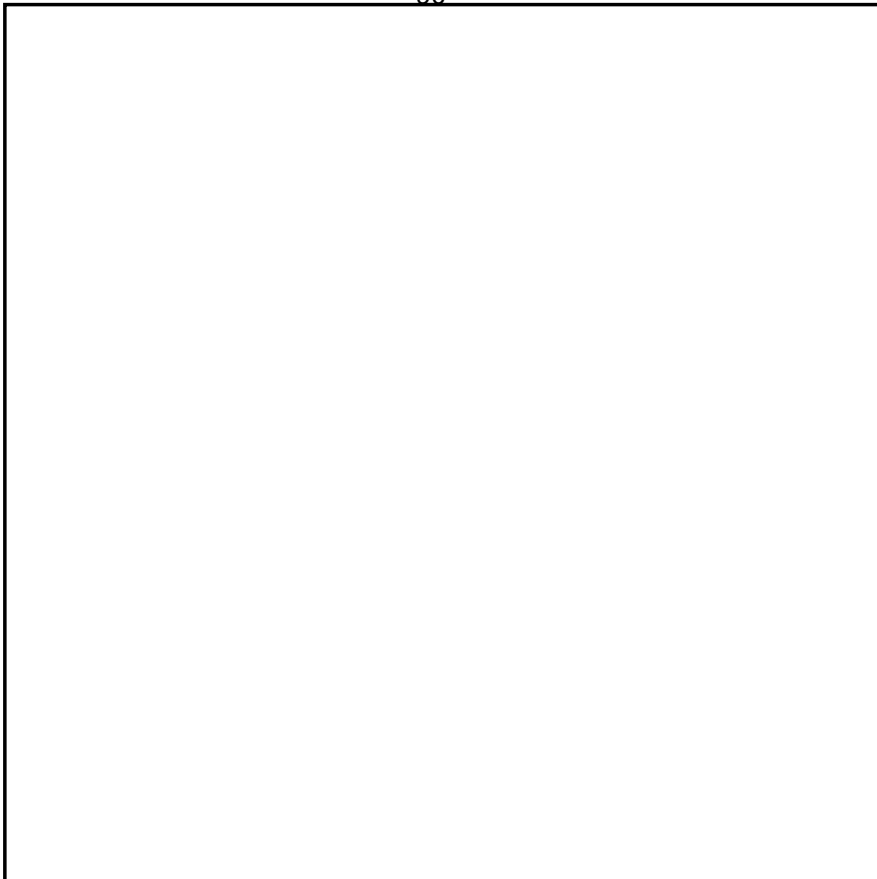
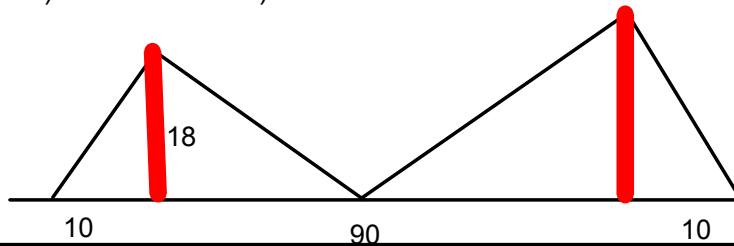
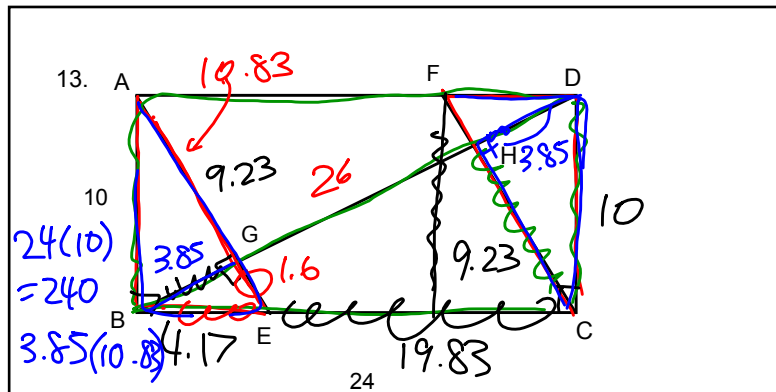


1. a) $x = 10$ b) $x = 12.5$ c) ($c = 25$), $x = 6.72$ d) $x = 4$
 e) $x = 12$ f) ($m = 6$), $n = 10.7$

4. This is a right angle triangle. $h = 547.7$ m

10. a) 24 cm tall. b) 146.06 cm





$$10^2 + 24^2 = BD^2 \quad BD = 26$$

$$ch = ab$$

$$26h = 240$$

$$h = 9.23$$

$$a) 26 - 2(3.85) = 19.3$$

$$b^2 = nc$$

$$10^2 = 9.23c$$

$$c = 10.83$$

$$1.6^2 + 3.85^2 = BE^2$$

$$17.3825 = BE^2$$

$$4.17 = BE$$

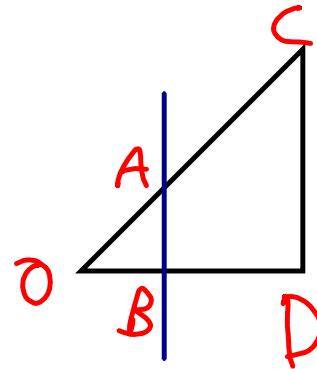
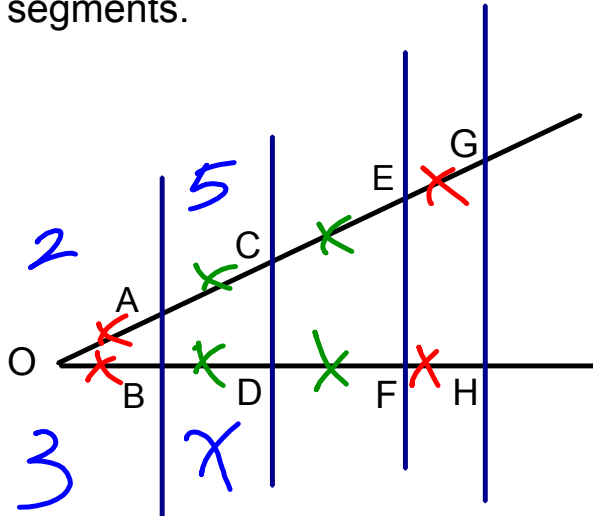
$$24 - 4.17 = 19.83$$

$$bh = 19.83(10)$$

$$= 198.3$$

4. Thales Theorem

Transversals crossing parallel lines are divided into proportional segments.



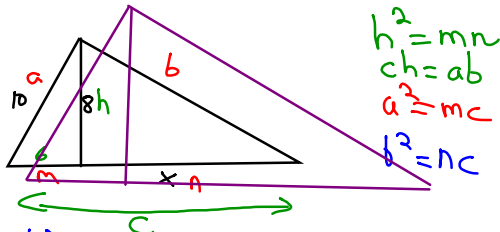
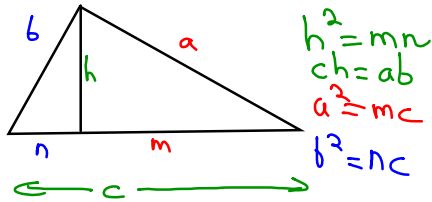
$$\frac{OA}{OB} = \frac{OC}{OD}$$

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

$$\frac{2}{3} = \frac{5}{x}$$

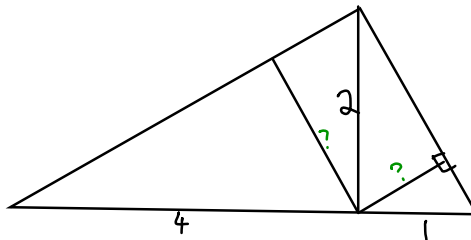
$$2x = 15$$

$$x = 7.5$$

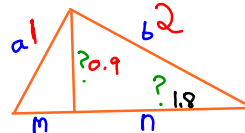


$h^2 = mn$
 $8^2 = 6n$
 $64 = 6n$
 $10.\bar{6} = n$

p 59 #6



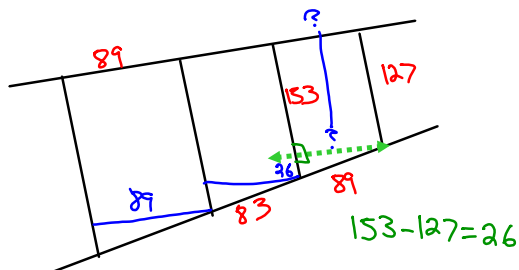
$h^2 = mn$
 $ch = ab$
 $a^2 = mc$
 $b^2 = nc$



$ch = ab$
 $h = \frac{ab}{c}$
 $h = \frac{(1)(2)}{2.23} = 0.9$

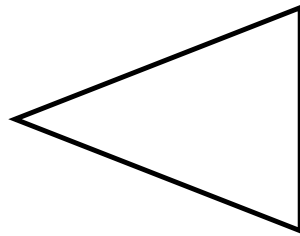
$b^2 = nc$
 $2^2 = n(2.23)$
 $4 = 2.23n$
 $\frac{4}{2.23} = n$
 $1.8 = n$

$1^2 + 2^2 = c^2$
 $1 + 4 = c^2$
 $5 = c^2$
 $\sqrt{5} = c$
 $c = 2.23$



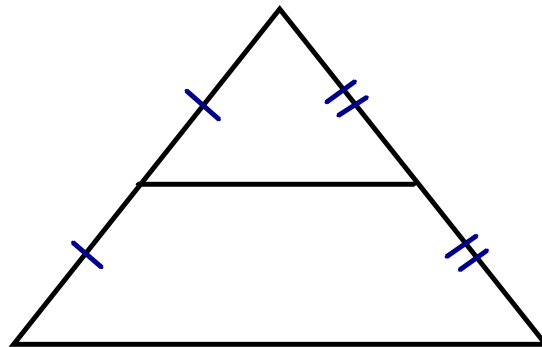
Solving Sides of Similar Triangles

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

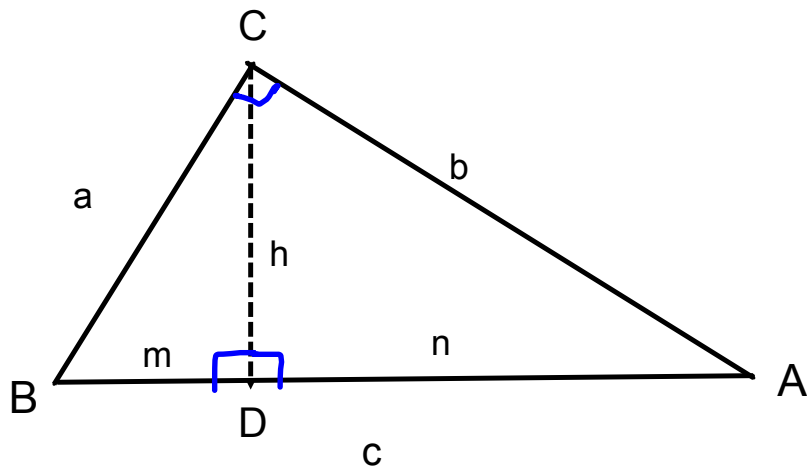


2. Any (line) segment joining the midpoints of 2 sides of a triangle is:

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



3. Metric Relations



$$a^2 = mc$$

$$b^2 = nc$$

$$h^2 = mn$$

$$ch = ab$$

March 12, 2014

