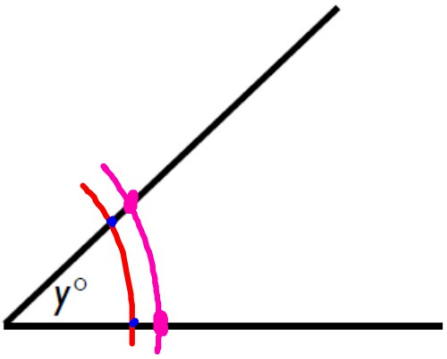
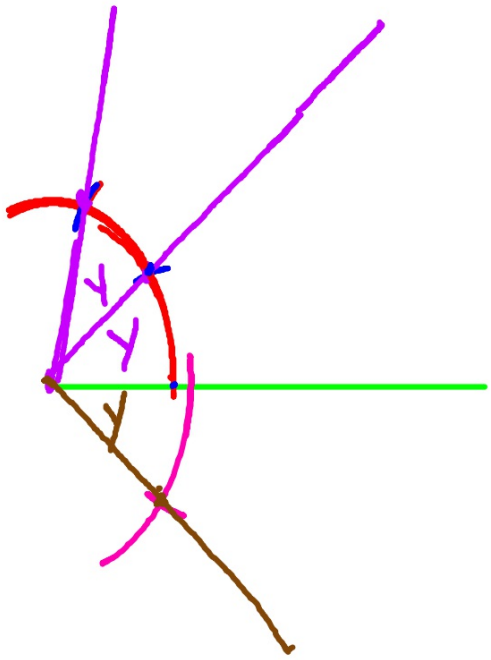
WARMUP

1-2: Given angles of measure x and y. Construct an angle having the indicated measure.

1) $y + y = 2y$ 3y

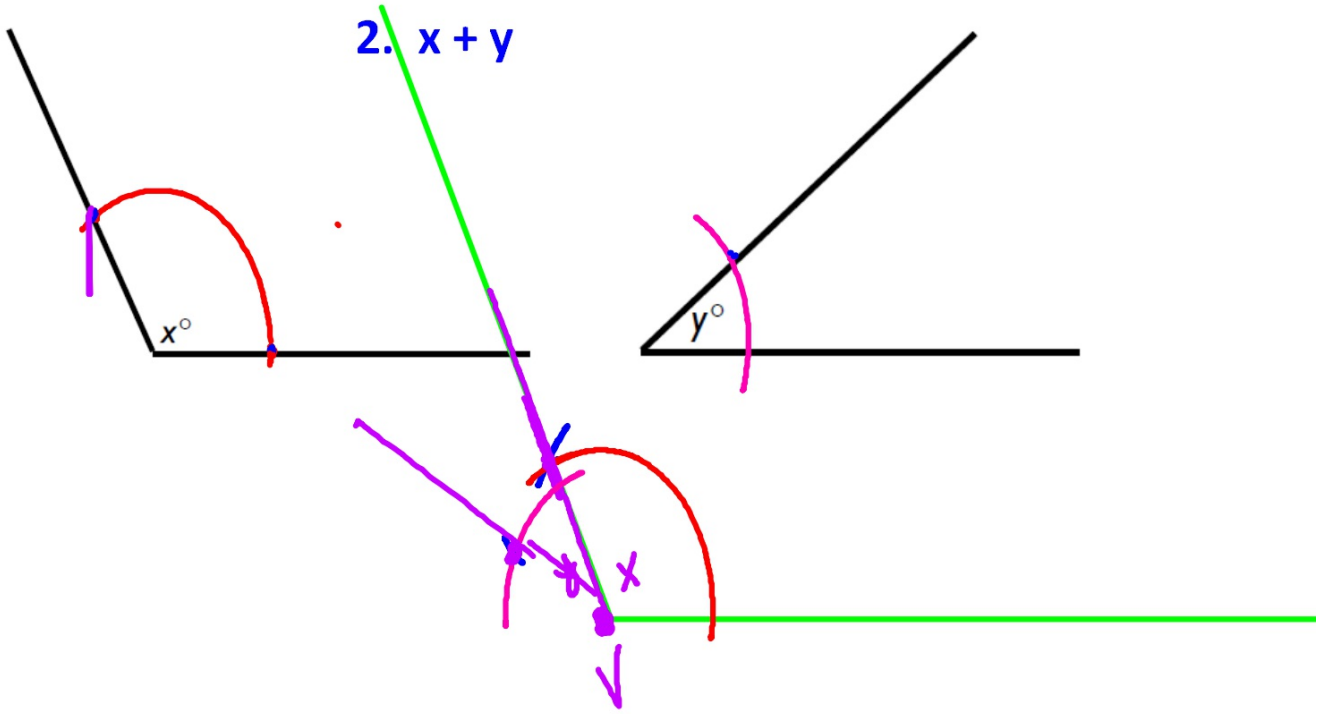


+y



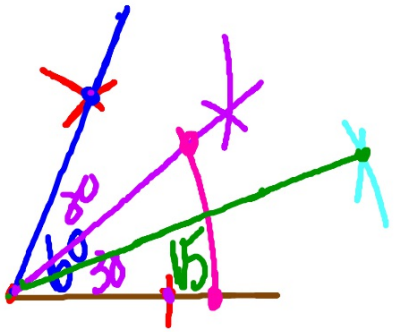
WARMUP

1-2: Given angles of measure *x* and *y*. Construct an angle having the indicated measure.



WARMUP

3) Construct a 15° angle.



WARMUP

4) Construct a 75° angle.

SECTION 10.2:
PERPENDICULAR & PARALLELS

These constructions are based on the following theorems:

1) If a point is equidistant from the endpoints of a segment, then the point lies on the perpendicular bisector of the segment.

2) Through any 2 pts there is exactly 1 line.

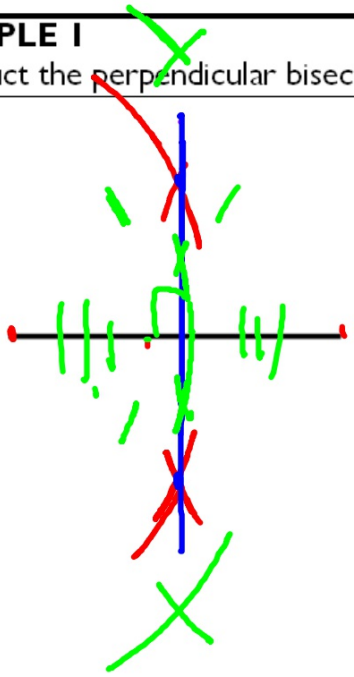
CONSTRUCTION 4

Given a segment, construct the perpendicular bisector of the segment.

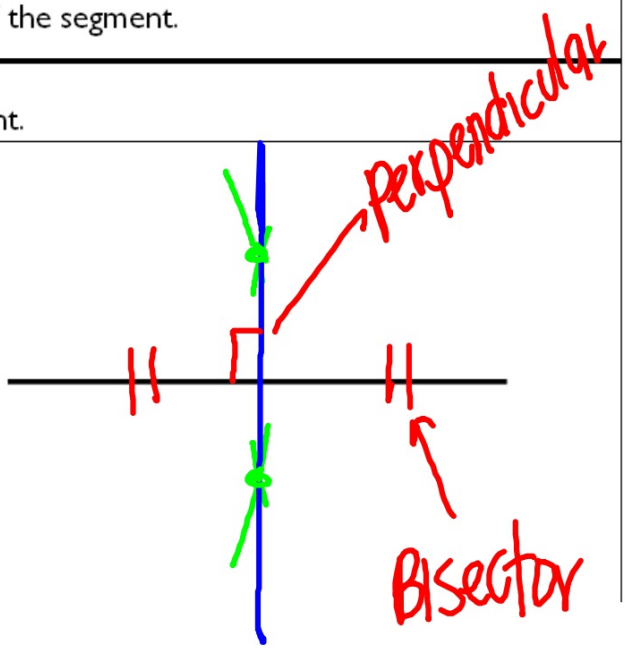
EXAMPLE 1

Construct the perpendicular bisector of the given segment.

a)



b)



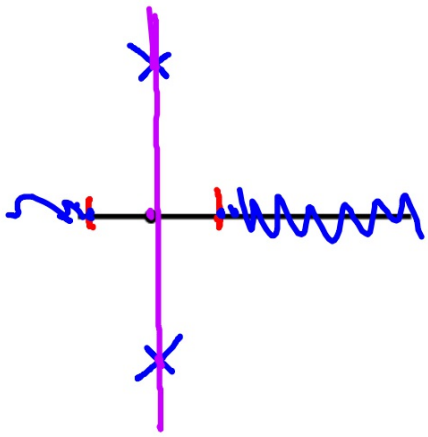
CONSTRUCTION 5

Given a point on a line, construct the perpendicular to the line at the given point.

EXAMPLE 2

Construct a line perpendicular to the given line through the point on the line.

a)



b)

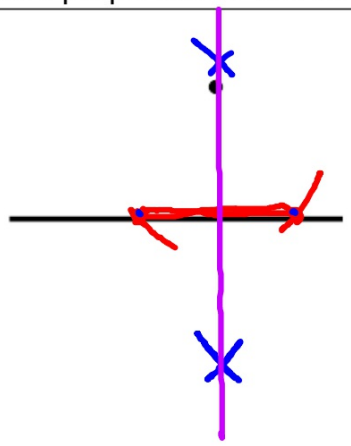
CONSTRUCTION 6

Given a point outside a line, construct the perpendicular to the line from the given point.

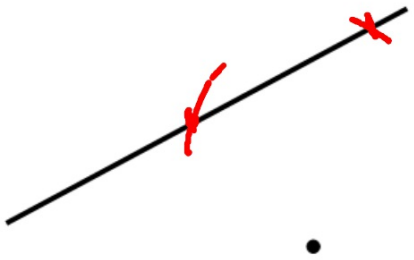
EXAMPLE 3

Construct a perpendicular line to the given line that passes through the given point.

a)



b)



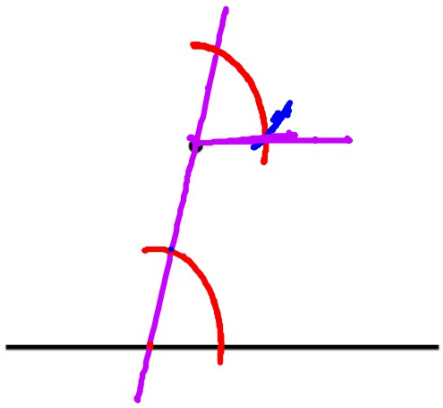
CONSTRUCTION 7

Given a point outside a line, construct the parallel to the given line through the given point.

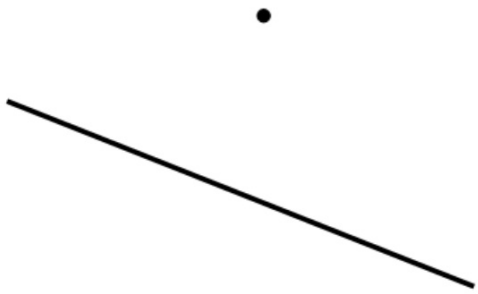
EXAMPLE 4

Construct a parallel line to the given line that passes through the given point.

a)



b)



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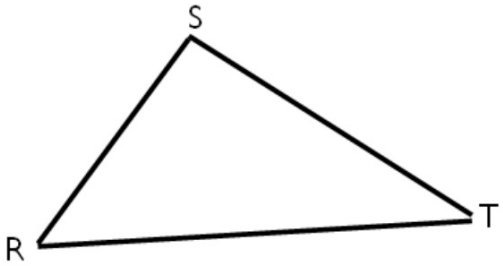
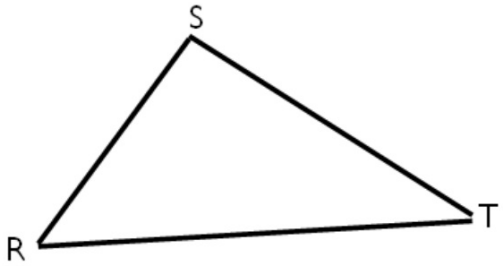
EXAMPLE 5

Construct the altitude through S.



EXAMPLE 6

Construct the median through R.



HOMEWORK

Assignment #10.2a

- 10.2 Worksheet

THURSDAY - QUIZ 10.1-10.2

TUES MAY 8 - QUIZ CHAPTER 10

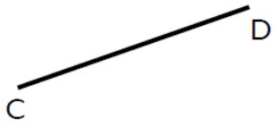
THURS MAY 10 - TEST CHAPTER 10

10.2 WORKSHEET

1-3: Construct the perpendicular bisectors of the following segments.

1)

2)



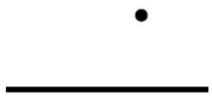
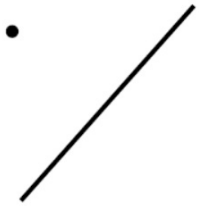
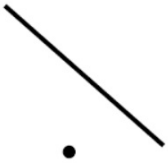
3)

4-6: Construct a perpendicular line to each line through the given point.

4)

5)

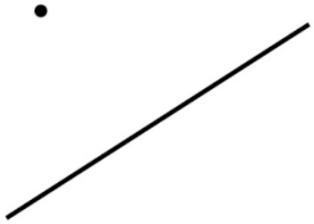
6)

7-9: Construct a perpendicular line to each line through the point outside the line.		
7) 	8) 	9) 

10-11: Construct a parallel line to the given line through the point outside the line.

10)

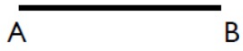
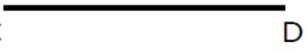
11)



12) Construct an equilateral triangle.

13) Construct the perpendicular bisector of $\overline{AB}$.

14-17: Use the constructions in problems 12 and 13 to create the following angles.	
14) 150°	15) 105°
16) 75°	17) 135°

18-20: Given the following bases, construct different sized isosceles triangles.		
18) 	19) 	20) 

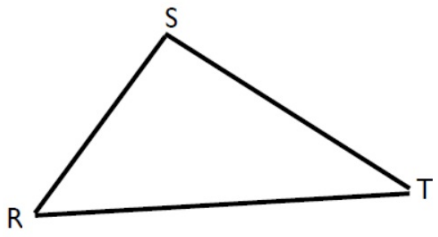
21-23: Given the following bases construct equilateral triangles.

21)

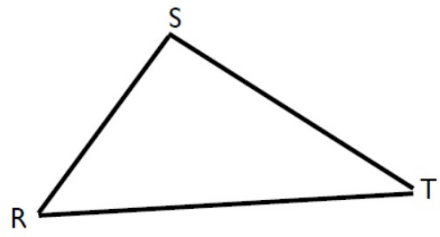
22)

23)

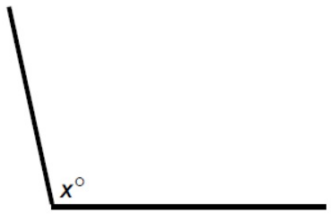
24) Construct the median through T

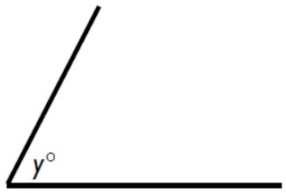


25) Construct the altitude through T



26) Construct an equilateral triangle.





27-31: Using problem 26 and the two angles above, construct the following angles.	
27) 60°	28) 30°
29) 120°	30) $2y$

31) $x - y$