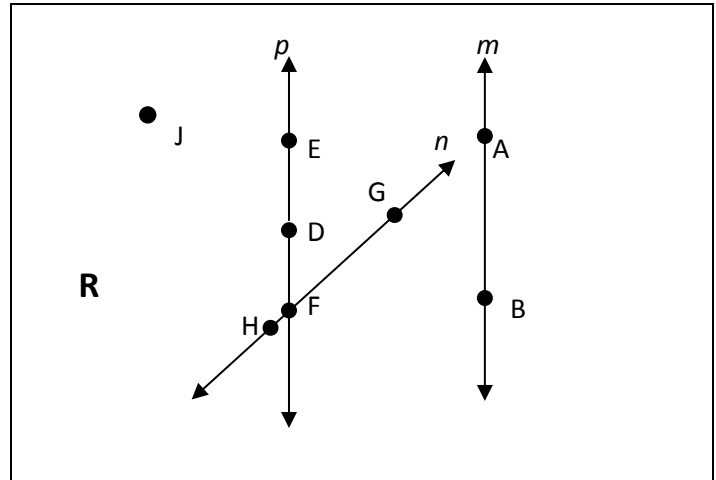
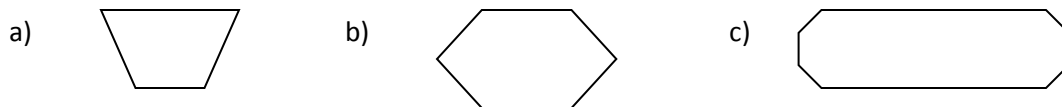


Chapter 1

1. Name 3 collinear points.
2. Name 3 points that are not collinear.
3. Name 3 coplanar points.
4. Name line p as many ways as possible.
5. Give another name for plane R .
6. Is plane EDF a correct name for plane R ?
7. Is $\overleftrightarrow{HDG}$ another name for line n ?
8. Name a point not contained in a line.
9. Where do lines p and n intersect?
10. Will lines n and m ever intersect?



11. Name the geometric shape (line segment, plane, line, point, intersecting planes, intersecting lines) modeled by each of the following.
 - a) The floor
 - b) The floor and the wall
 - c) The tip of a pen
 - d) A blanket
 - e) A telephone pole
12. Classify the polygon by its number of sides.



13. A regular heptagon has a perimeter of 56 feet. What is the length of one of its sides?
14. A regular decagon has a side length of $3x$. What is its perimeter?

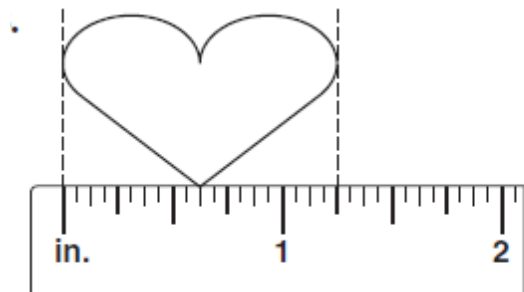
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Geometry 1st Semester Exam Review 2014-2015 – Part 2 During Exams

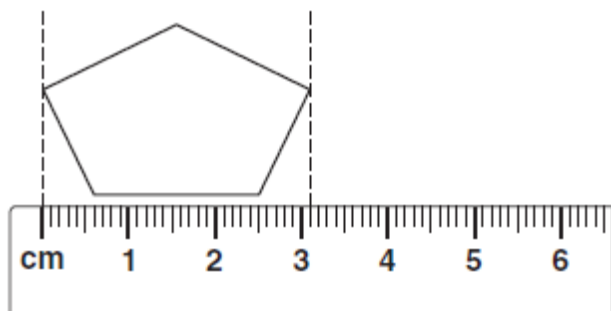
Due the day of the exam

15. Find the length. Provide units.

a)



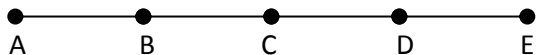
B)



16. Given V between S and T, $VT=2.6$ in and $ST=4.1$ in, find SV.

17. Given G between E and F, $EG=2.5$ and $GF=2.8$, find EF.

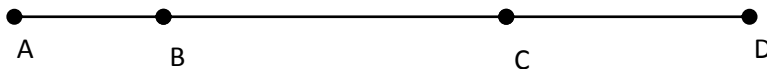
18. Consider the picture below where $\overline{AB} \cong \overline{BC} \cong \overline{CD} \cong \overline{DE}$ and $AE=48$ feet. Find the length of BD.



19. On the number line below $AD=14$, CD is twice the length of AB, and BC is 4 less than three times the length of AB. Find x and the length of BC.

X = _____

BC=_____



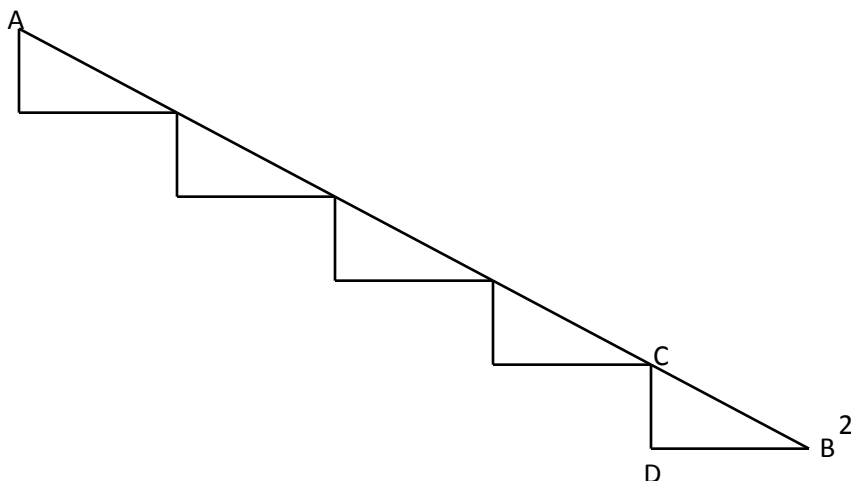
20. Consider the staircase shown below.

The length of $CD=8$ and $DB=12$.

Round to the nearest hundredth.

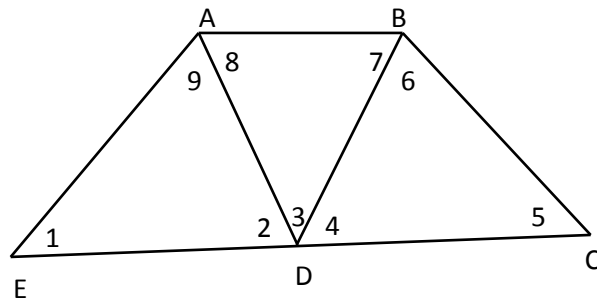
A) Find CB

B) Find AB



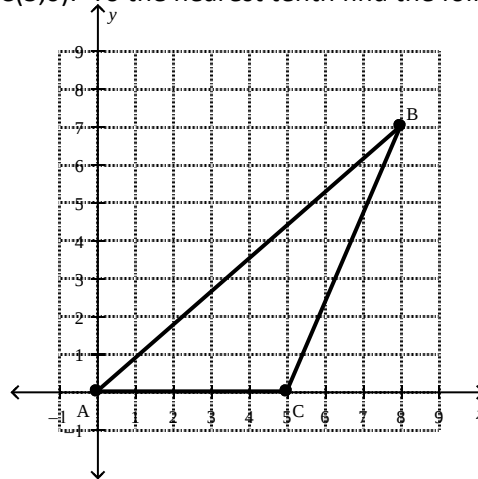
21. Consider the picture at the right below.

- What is the another name for $\angle ADB$?
Give the number.
- What is the another name for $\angle DBC$?
Give the number.



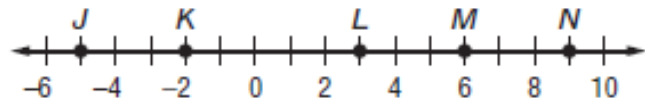
22. Consider the picture below where A (0,0), B(8,7), and C(5,0). To the nearest tenth find the following lengths.

- $AB =$ _____
- $BC =$ _____
- $AC =$ _____

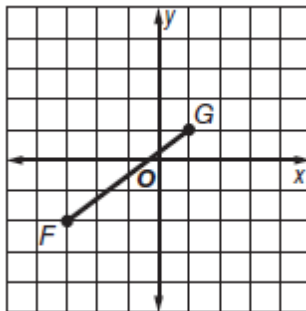


23. Use the picture at the right below to find:

- KL
- MJ
- The midpoint of KM
- The midpoint of KL



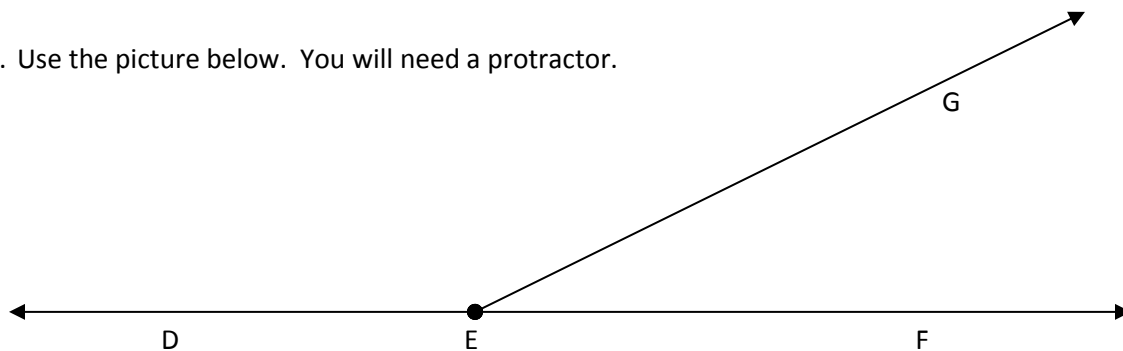
24. Find the distance of FG



25. Find the distance and midpoint of AB with A (-2, 4) and B (8, 10)

26. R is the midpoint between A and B. If $AR=9x-2$ and $RB=14+5x$, then find AB. DRAW AND LABEL A PICTURE!!

27. Use the picture below. You will need a protractor.

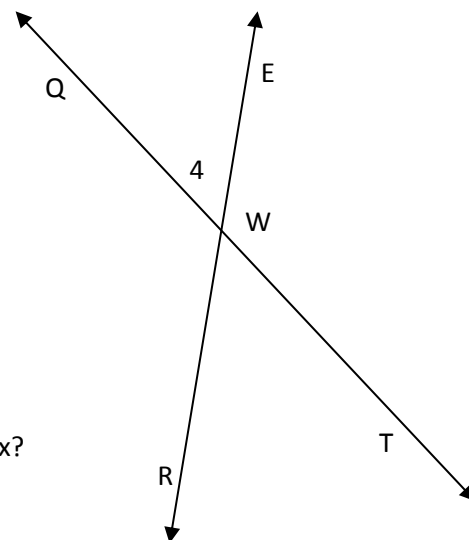


- Find $m\angle GEF$. Is this angle acute or obtuse?
- Find $m\angle DEG$. Is this angle acute or obtuse?
- $m\angle GEF + m\angle DEG = ?$

D

28. Use the picture at the right below to answer the following questions

- Which angle forms a linear pair with $\angle 4$?
- Which angle is a vertical angle to $\angle 4$?
- If the $m\angle QWR = 108$ then find the $m\angle RWT$.
- If the $m\angle QWR = 108$ then find the $m\angle EWT$.
- If the $m\angle QWE = 12x - 14$ and $m\angle RWT = 3x + 22$ then what is the value for x ?



- If the $m\angle EWT = 20x + 4$ and $m\angle RWT = 8x - 20$ then what is the value for x and $m\angle QWR$.

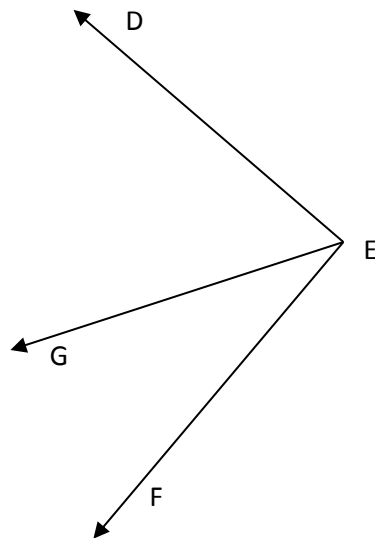
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29. In the figure below $\angle DEF$ is a right angle, $m\angle DEG = 5x + 20$, and $m\angle GEF = 3x + 4$.

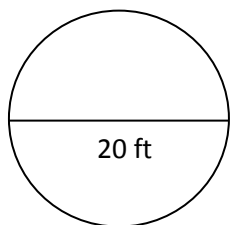
What is the measure of angle $\angle DEG$?



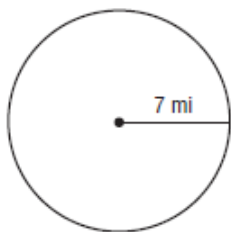
30. If $m\angle 1 = 16x - 2$ and $m\angle 2 = 9x + 32$, find the value of x so that $\angle 1$ is supplementary to $\angle 2$.

31. If $m\angle 1 = 10x + 25$ and $m\angle 2 = 15x - 10$, find the value of x so that $\angle 1$ is complementary to $\angle 2$.

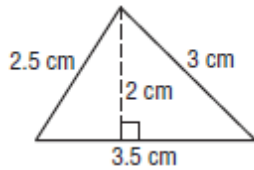
32. Find the area and circumference of the circle shown below. Round your answer to the nearest hundredth.



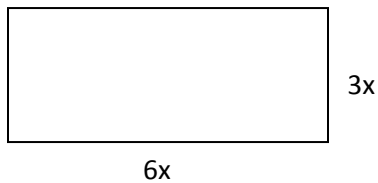
33. Find the area and circumference of the circle shown below. Round your answer to the nearest hundredth.



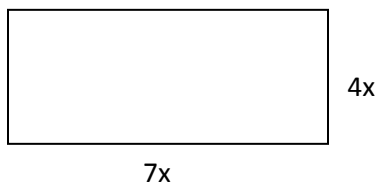
34. Find the area and perimeter of the triangle shown below.



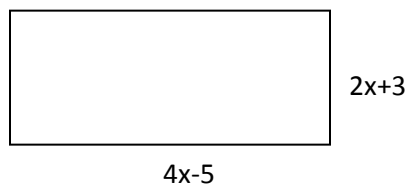
35. The figure below shows a rectangle with its given dimensions. The perimeter of the rectangle is 198. What is the value of x ?



36. The figure below shows a rectangle with its given dimensions. The area of the rectangle is 448. What is the value of x ?

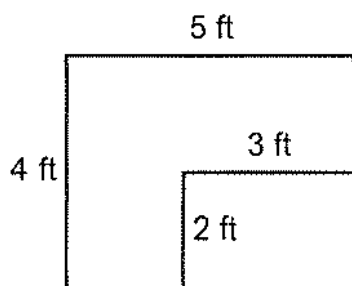


37. What is the perimeter of the rectangle shown below. Your answer will look like “ $20x+44$ ” – this is not the answer.

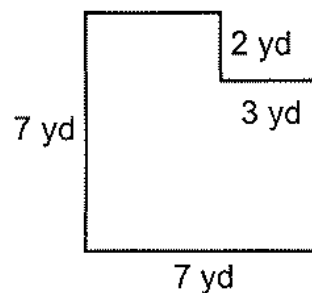


38. Find the area and perimeter of each irregular shaped region.

a) $P = \underline{\hspace{2cm}}$; $A = \underline{\hspace{2cm}}$



b) $P = \underline{\hspace{2cm}}$; $A = \underline{\hspace{2cm}}$



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39. Liam has a rectangular garden that is 4-foot-by-6-foot.

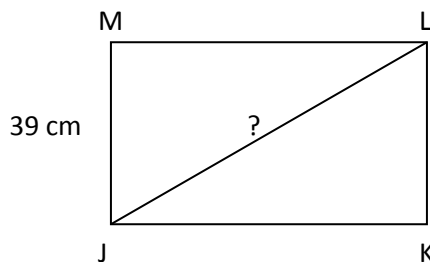
a) What is the area of his garden?

b) He wants to double the area of his garden. What will be the area of this garden?

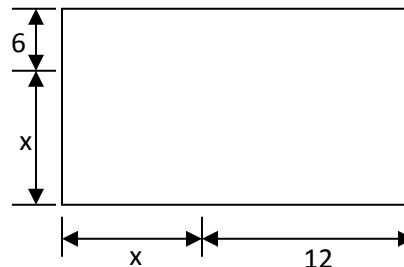
c) If he doubles the length and width of the original garden, what will be the area of this garden?

40. A rectangular garden 32 feet by 45 feet is surrounded by a path 3 feet wide. What is the outer perimeter of the walk?

41. Rectangle JKLM shown below has a perimeter of 238 cm. What is the length, in centimeters, of $\overline{JL}$?



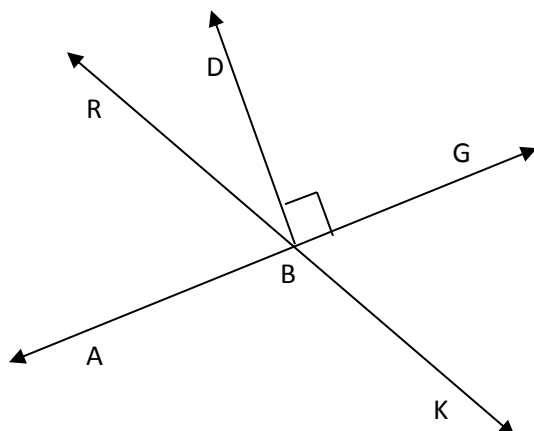
42. Measurements for the rectangle shown below are in inches. The perimeter of the rectangle is 72 inches. What is the area of the rectangle in square inches?



Use the picture at the right below for questions 43 and 44.

43. If $m\angle GBK = 65^\circ$, find $m\angle RBD$.

44. If $m\angle ABK = 3x + 21$ and $m\angle RBA = 2x + 9$, find x .



Chapter 3

Refer to the figure at the right below to identify each of the following.

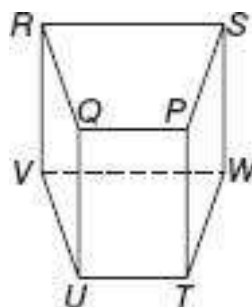
45. A plane parallel to plane QRS

46. A plane perpendicular to plane QPU

47. A segment skew to $\overline{PS}$ that contains point U

48. All segments parallel to $\overline{PT}$

49. A segment perpendicular to $\overline{QP}$



Refer to the figure at the right below where $x \parallel y$.

50. If $m\angle 1 = 63$, find $m\angle 5 =$ _____

What is the relationship (type of angles) between these two angles?

51. If $m\angle 3 = 47$, find $m\angle 5 =$ _____

What is the relationship (type of angles) between these two angles?

52. If $m\angle 4 = 123$, find $m\angle 5 =$ _____

What is the relationship (type of angles) between these two angles?

53. If $m\angle 6 = 110$, find $m\angle 5 =$ _____

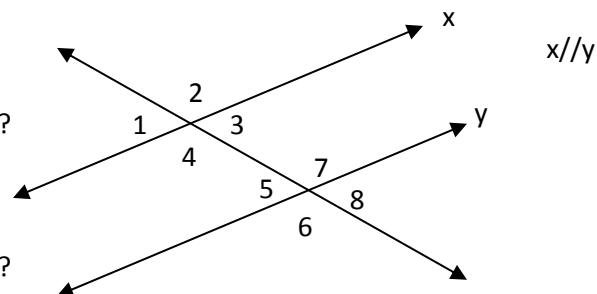
What is the relationship (type of angles) between these two angles?

54. If $m\angle 8 = 43$, find $m\angle 5 =$ _____

What is the relationship (type of angles) between these two angles?

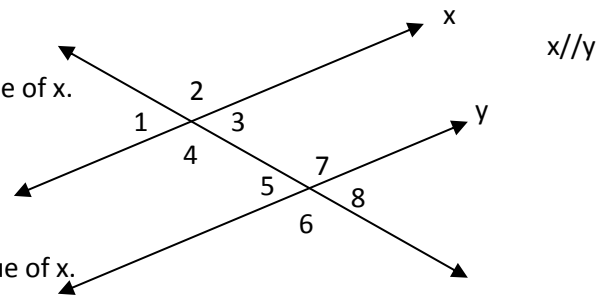
55. If $m\angle 8 = 55$, find $m\angle 1 =$ _____

What is the relationship (type of angles) between these two angles?



Refer to the figure at the right below where $x \parallel y$.

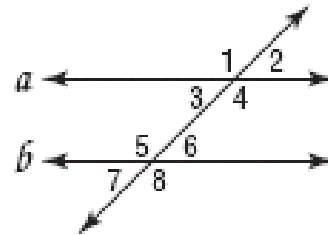
56. Given that $x \parallel y$, $m\angle 4 = 14x - 1$, and $m\angle 5 = 5x + 10$, find the value of x .



57. Given that $x \parallel y$, $m\angle 2 = 16x - 22$, and $m\angle 7 = 8x + 46$, find the value of x .

58. *Multiple Choice.* Given $a \parallel b$, $m\angle 7 = 8x + 7$ and $m\angle 1 = 15x - 11$ find the $m\angle 6$?

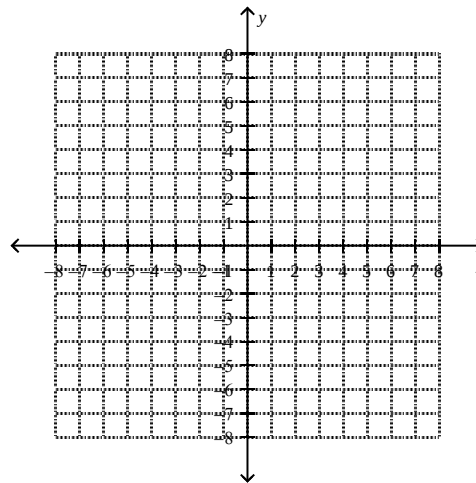
- A 69
- B 70
- C 71
- D 72



59. (a) Graph the point $(3, -2)$. Label it point P .

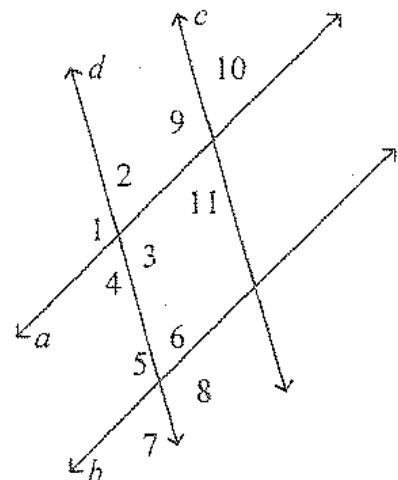
(b) Graph the line $y = 4$. Label it line n .

(c) What is the distance from P to n ?



60. *Multiple Choice.* If $\angle 2 \cong \angle 6$ determine which lines are parallel. State the postulate or theorem that justifies your answer.

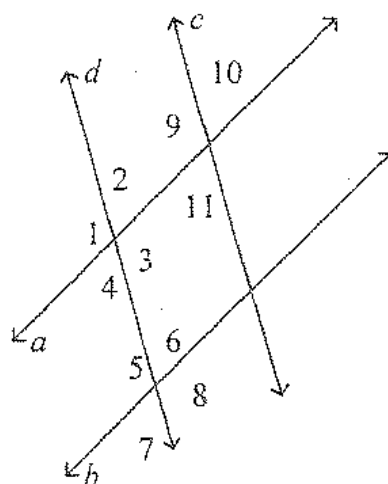
- A $a \parallel b$; congruent corresponding angles
- B $c \parallel d$; congruent alternating exterior angles
- C $c \parallel d$; congruent corresponding angles
- D $a \parallel b$; congruent alternating exterior angles



Due the day of the exam

61. *Multiple Choice.* If $\angle 4 \cong \angle 10$ determine which lines are parallel. State the postulate or theorem that justifies your answer.

- A $a \parallel b$; congruent corresponding angles
- B $c \parallel d$; congruent alternating exterior angles
- C $c \parallel d$; congruent corresponding angles
- D $a \parallel b$; congruent alternating exterior angles



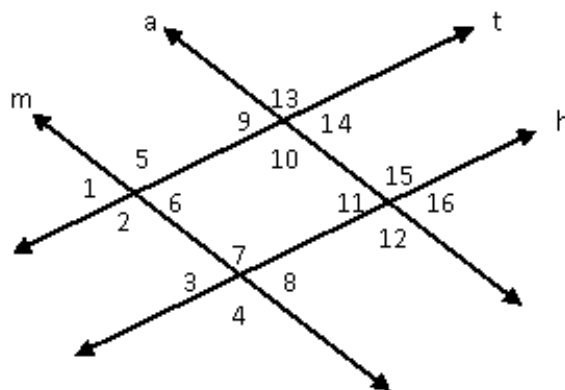
For problems 62 and 63 refer to the picture below,

62. Which angle relationship justifies $m \parallel a$?

- A $\angle 8 \cong \angle 12$
- B $\angle 7 \cong \angle 4$
- C $m\angle 13 + m\angle 14 = 180$
- D $m\angle 6 + m\angle 10 = 180$

63. Which angle relationship justifies $t \parallel h$?

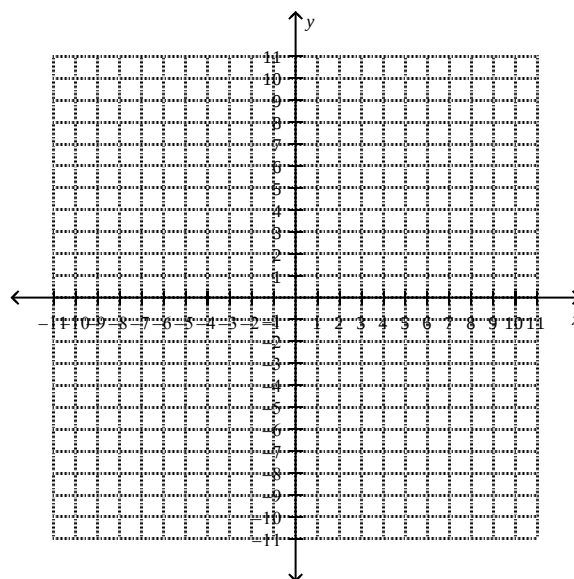
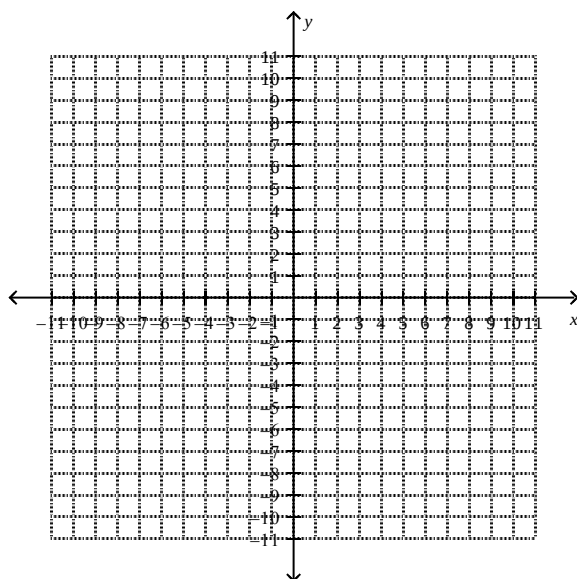
- A $\angle 5 \cong \angle 13$
- B $\angle 1 \cong \angle 3$
- C $m\angle 15 + m\angle 16 = 180$
- D $\angle 8 \cong \angle 16$



64. Determine whether $\overleftrightarrow{AB}$ and $\overleftrightarrow{CD}$ are parallel, perpendicular, or neither.

a) $A(1,11), B(-4,0), C(-7,6), D(5,6)$

b) $A(3,10), B(-3,1), C(-3,9), D(6,3)$



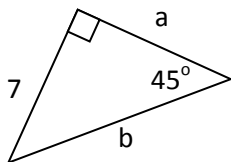
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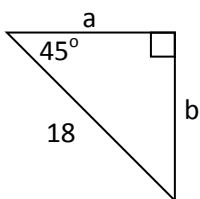
Due the day of the exam

65. Using special right triangle relationships solve each of the following for a and b.

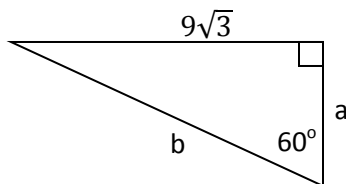
A) $a = \underline{\hspace{1cm}}$ $b = \underline{\hspace{1cm}}$



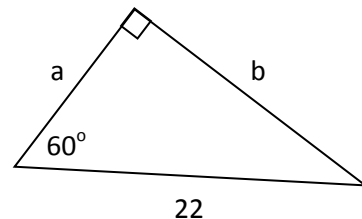
B) $a = \underline{\hspace{1cm}}$ $b = \underline{\hspace{1cm}}$



C) $a = \underline{\hspace{1cm}}$ $b = \underline{\hspace{1cm}}$



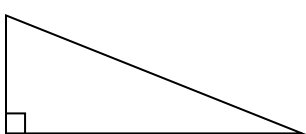
D) $a = \underline{\hspace{1cm}}$ $b = \underline{\hspace{1cm}}$



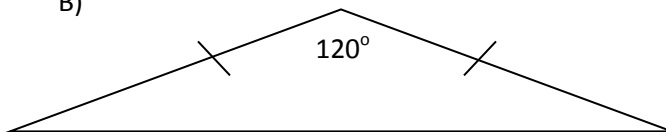
Chapter 4

66. Classify each triangle by its sides AND angles. If sides look different lengths or an angle appears to be obtuse or acute you may assume it's true.

a)



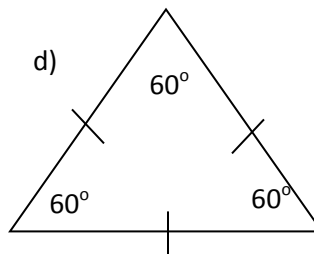
B)



c)



d)



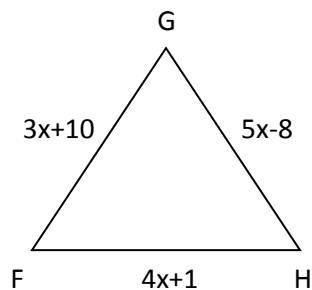
67. Find x and the length of each side if triangle FGH is equilateral.

$x = \underline{\hspace{1cm}}$

$FG = \underline{\hspace{1cm}}$

$FH = \underline{\hspace{1cm}}$

$GH = \underline{\hspace{1cm}}$

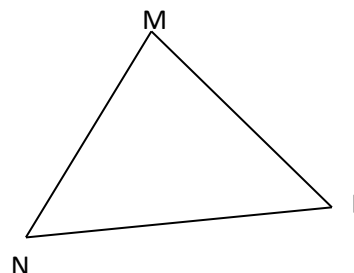


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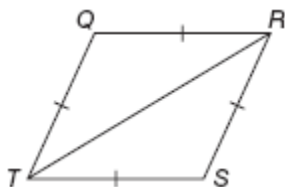
Geometry 1st Semester Exam Review 2014-2015 – Part 2 During Exams

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68. $\triangle LMN$ is an isosceles triangle, with *base* MN . $LM = 3x - 2$, $LN = 2x + 1$, and $MN = 5x - 2$. Find the perimeter of the triangle.

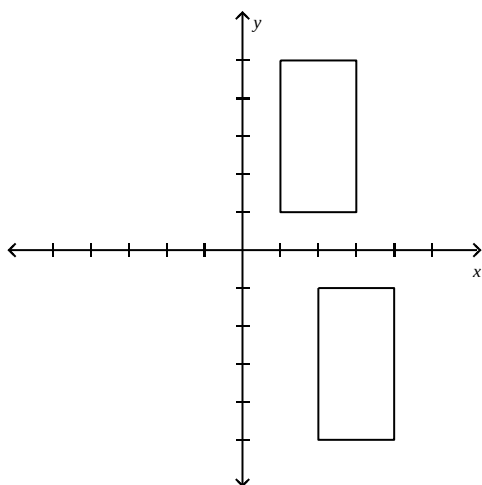


69. The rhombus $QRST$ is made of two congruent isosceles triangles. Given $m\angle QRS = 28$, what is the measure of $\angle S$?

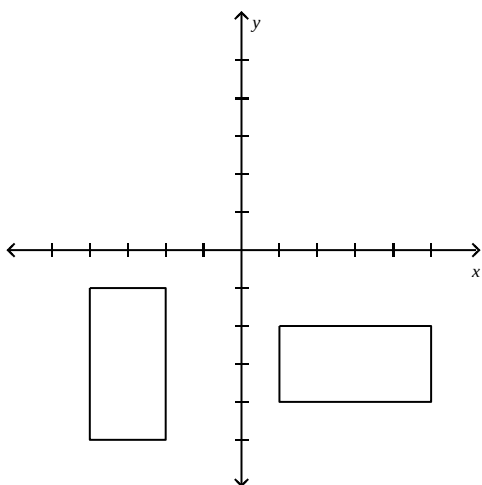


70. Identify the type of congruence transformation for each picture below. (Reflection, Translation, or Rotation)

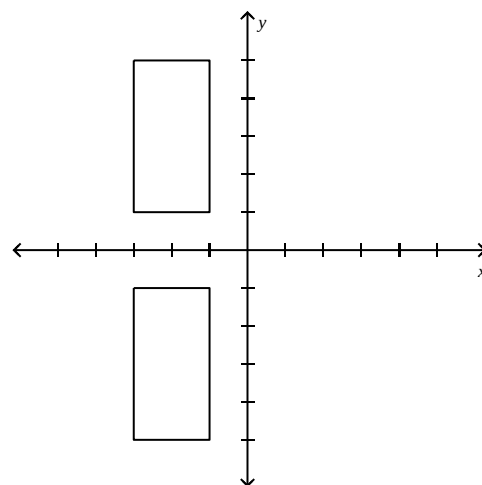
a)



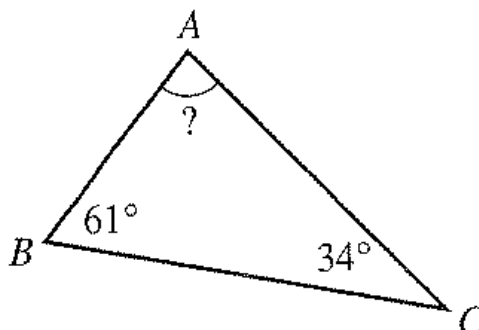
B)



c)



71. In $\triangle ABC$ at the right, what is the measure of $\angle A$?



72. Find the measure of each angle.

$m\angle 1 = \underline{\hspace{2cm}}$

$m\angle 2 = \underline{\hspace{2cm}}$

$m\angle 3 = \underline{\hspace{2cm}}$

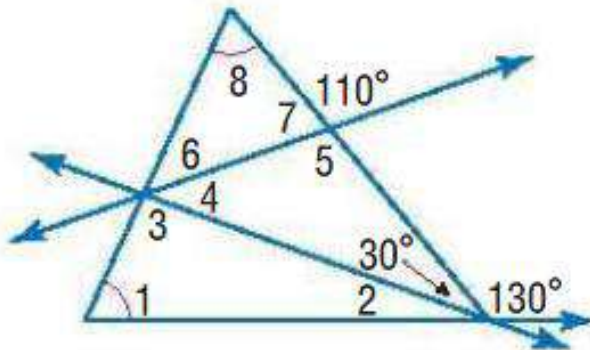
$m\angle 4 = \underline{\hspace{2cm}}$

$m\angle 5 = \underline{\hspace{2cm}}$

$m\angle 6 = \underline{\hspace{2cm}}$

$m\angle 7 = \underline{\hspace{2cm}}$

$m\angle 8 = \underline{\hspace{2cm}}$

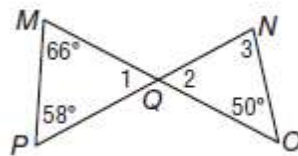


73. Find the measure of each numbered angle.

$m\angle 1 = \underline{\hspace{2cm}}$

$m\angle 2 = \underline{\hspace{2cm}}$

$m\angle 3 = \underline{\hspace{2cm}}$

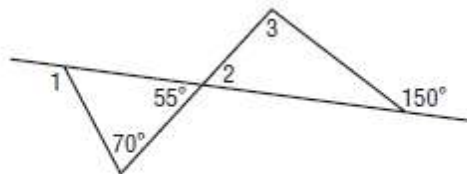


74. Find the measure of each numbered angle.

$m\angle 1 = \underline{\hspace{2cm}}$

$m\angle 2 = \underline{\hspace{2cm}}$

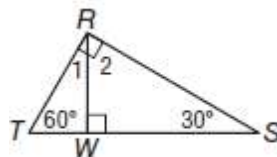
$m\angle 3 = \underline{\hspace{2cm}}$



75. Find the measure of each numbered angle.

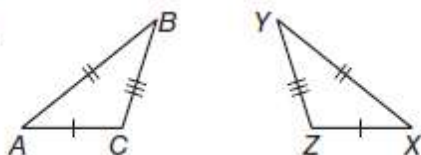
$m\angle 1 = \underline{\hspace{2cm}}$

$m\angle 2 = \underline{\hspace{2cm}}$

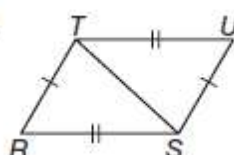


76. Provide a proper congruence statement for the figure below.

1.



2.



Name _____ Date _____ Hour _____

Geometry 1st Semester Exam Review 2014-2015 – Part 2 During Exams

Due the day of the exam

77. If $\triangle SUN \cong \triangle HAT$ give the segment or angle that corresponds to each of the following

- a. $\angle SNU$ b. $\angle S$ c. $\overline{SN}$ d. $\overline{TA}$

78. If $\triangle LMN \cong \triangle RST$, $m\angle L = 45$, $m\angle M = 10x + 2$, $m\angle S = 82$, and $m\angle T = 5y - 7$, then find x and y.

79. If $\triangle SUN \cong \triangle HAT$, $UN = 6$ inches, $HA = 4$ inches, $m\angle S = 120^\circ$, and $m\angle A = 25^\circ$, then find

- a) $SU =$ _____
b) $m\angle N =$ _____
c) $m\angle U =$ _____