

Geometry  
1<sup>st</sup> Semester Exam  
Exam Review Part I

Name: \_\_\_\_\_  
Period: \_\_\_\_\_ Date: \_\_\_\_\_  
'THINGS I NEED TO KNOW'

When completed, this document will be a study guide of vocabulary, formulas, concepts, etc. that are **CRITICAL** that you know for your exam. Write out the indicated info and include examples & diagrams to help!

I. DEFINITIONS: *→ Use your text/glossary!* Write out the full definition for each term. Include examples.

1) acute  $\angle$

2) obtuse  $\angle$

3) right  $\angle$

4) straight  $\angle$

5) scalene triangle

6) isosceles triangle

7) equiangular triangle

8) equilateral triangle

9) complementary  $\angle$ 's

10) supplementary  $\angle$ 's

11) 3 rigid transformations

12) conditional statement

13) converse

14) regular polygon

15) central  $\angle$  of regular polygon

16) linear pair

17) midpoint

18) congruent

19) conjecture

20) adjacent  $\angle$ 's

21) vertical  $\angle$ 's

22)  $\angle$  bisector

23) perpendicular bisector

24) midsegment of a triangle

25) midsegment of a trapezoid

26) image

27) pre-image

II. Formulas: Write out the formula to find the indicated item. Include an example.

28) slope of line given 2 points on line

29) midpoint of segment given endpoints

30) sum of interior  $\angle$ 's in a polygon

31) measure of 1 interior  $\angle$  in reg polygon

32) sum of exterior  $\angle$ 's in a polygon

33) measure of 1 exterior  $\angle$  in reg polygon

34) length of midsegment of triangle

35) length of midsegment of trapezoid

III. Properties of Equality: Write an example that illustrates each property.

36) Addition property of equality

37) Subtraction property of equality

38) Multiplication property of equality

39) Division property of equality

40) Reflexive property of equality

41) Symmetric property of equality

42) Transitive property of equality

IV. Properties of Special Quadrilaterals: Fill in the blanks

43) A quadrilateral with exactly one pair of parallel sides is a \_\_\_\_\_.

44) In a parallelogram, opposite sides are \_\_\_\_\_ & \_\_\_\_\_.

45) In a parallelogram, opposite  $\angle$ 's are \_\_\_\_\_.

46) In a parallelogram, consecutive  $\angle$ 's are \_\_\_\_\_.

47) In a parallelogram, the \_\_\_\_\_ bisect each other.

48) A rectangle has all the properties of a \_\_\_\_\_ plus:

- It's  $\angle$ 's are all \_\_\_\_\_  $\angle$ 's
- It's diagonals are \_\_\_\_\_.
- 

49) A square has all the properties of a \_\_\_\_\_, \_\_\_\_\_,  
and a \_\_\_\_\_.

50) A rhombus has all the properties of a \_\_\_\_\_, plus:

- It's diagonals are \_\_\_\_\_.
- It has 4 \_\_\_\_\_ sides.

Indicated if the given property is true of parallelograms (P), rectangles (R), rhombi (H), &/or squares (S) by writing the appropriate letter(s) after the given property.

51) opposite sides are congruent

52) diagonals are perpendicular

53) consecutive  $\angle$ 's are supplementary

54) diagonals bisect each other

55) diagonals are congruent

56) 4 right  $\angle$ 's

57) 4 congruent sides

#### V. Miscellaneous

58) Write the 5 postulates for proving triangles congruent & examples of a pair of triangles where each would apply.

59) Use proper notation to write each:

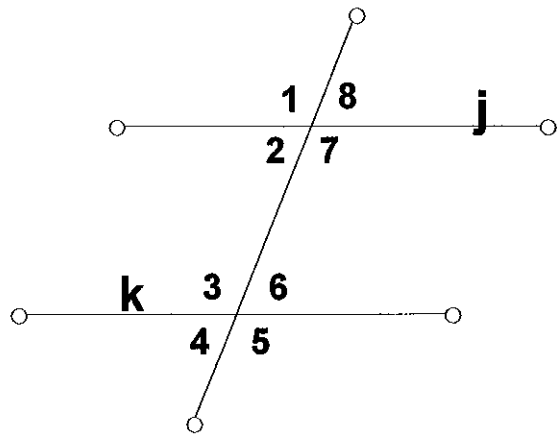
a) ray MN with endpoint @ N

b) line AB

c) segment XY

60) The \_\_\_\_\_ bisectors of the \_\_\_\_\_ of a triangle intersect at a single point known as the \_\_\_\_\_ which is the center of the inscribed circle for that triangle.

61) The \_\_\_\_\_ bisectors of the \_\_\_\_\_ of a triangle intersect at a single point known as the \_\_\_\_\_ which is the center of the circumscribed circle for that triangle.



Given  $j \parallel k$ . Name 1 pair of the specified  $\angle$ 's & indicate if they are congruent or supplementary.

Alternate interior:

Alternate exterior:

Corresponding:

Same-side interior:

Vertical: