

3rd 9 Weeks Study Sheet 1**Matching**

Match each of the following vocabulary words with its definition.

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|-----------------------|-------------------------|
| a. acute angle | e. supplementary angles |
| b. acute triangle | f. obtuse triangle |
| c. angle | g. complementary angles |
| d. center of rotation | h. congruent |

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| 1. having the same size and shape | 4. an angle that measures less than 90° |
| 2. a figure formed by two rays with a common endpoint called the vertex | 5. a triangle with all angles measuring less than 90° |
| 3. two angles whose measures add to 90° | 6. the point about which a figure is rotated |

Match each of the following vocabulary words with its definition.

- | | |
|-------------------------|-----------------------|
| a. correspondence | e. image |
| b. scalene triangle | f. isosceles triangle |
| c. diameter | g. line |
| d. equilateral triangle | h. line of symmetry |

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|---|---|
| 7. a triangle with three congruent sides | 9. a figure resulting from a transformation |
| 8. a triangle with at least two congruent sides | |

Match each of the following vocabulary words with its definition.

- | | |
|------------------|------------------------|
| a. acute angle | e. obtuse triangle |
| b. line symmetry | f. parallel lines |
| c. trapezoid | g. parallelogram |
| d. obtuse angle | h. perpendicular lines |

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| 10. a triangle containing one angle measuring greater than 90° and less than 180° | 12. an angle whose measure is greater than 90° but less than 180° |
| 11. lines in a plane that do not intersect | 13. lines that intersect to form right angles |

Match each of the following vocabulary words with its definition.

- | | |
|------------|---------------|
| a. plane | e. triangle |
| b. point | f. rotation |
| c. polygon | g. rectangle |
| d. ray | h. reflection |

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| 14. a transformation of a figure in which the figure is flipped across a line | 15. a closed plane figure formed by three or more line segments that intersect only at their endpoints (vertices) |
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Short Answer

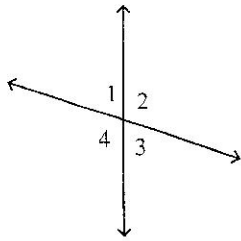
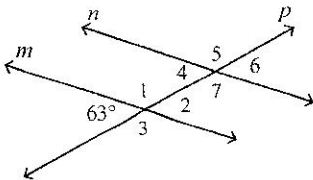


Figure 5-7

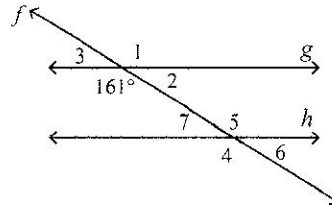
16. In Figure 5-7 above, $\angle 1$ and $\angle 3$ are vertical angles, and $\angle 2$ and $\angle 4$ are vertical angles. If $m\angle 4 = 100^\circ$, find $m\angle 2$.
17. In Figure 5-7 above, $\angle 1$ and $\angle 3$ are vertical angles, and $\angle 2$ and $\angle 4$ are vertical angles. If $m\angle 4 = 100^\circ$, find $m\angle 3$.

In the figure, line $m \parallel$ line n . Find the measure of each given angle.



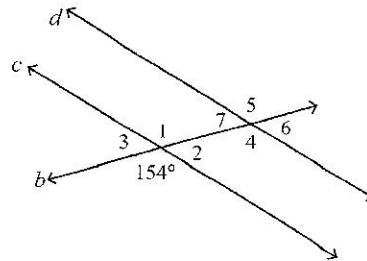
18. $\angle 4$
19. $\angle 1$
20. $\angle 7$

In the figure, line $g \parallel$ line h . Find the measure of each given angle.

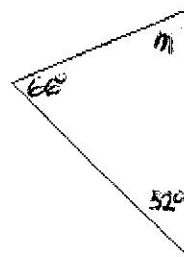


21. $\angle 4$
22. $\angle 2$
23. $\angle 6$

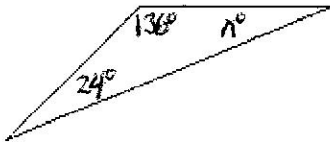
In the figure, line $d \parallel$ line c . Find the measure of each given angle.



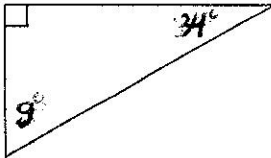
24. $\angle 5$
25. $\angle 3$
26. $\angle 7$
27. Find m in the acute triangle.



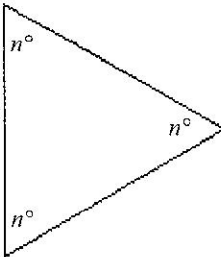
28. Find n in the obtuse triangle.



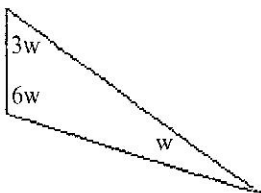
29. Find g in the right triangle.



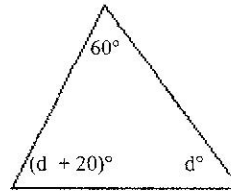
30. Find the angle measures in the equilateral triangle.



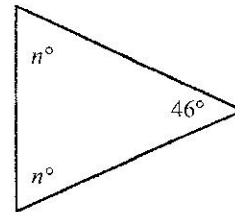
31. Find the missing angle measures in the scalene triangle.



32. Find the missing angle measures in the scalene triangle.



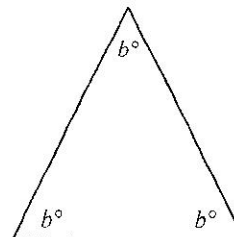
33. Find the missing angle measures in the isosceles triangle.



34. The second angle in a triangle is 3 times as large as the first. The third angle is $\frac{1}{3}$ as large as the second. Find the angle measures, and draw a possible picture.

35. The second angle in a triangle is twice as large as the first. The third angle is $\frac{3}{4}$ as large as the second. Find the angle measures, and draw a possible picture.

36. Find the angle measures in the regular polygon.



Name: _____

ID: A

37. The vertices of a triangle are A (2, 3), B (3, 5), and C (5, 3). What are the coordinates for A'B' and C' after the following transformation: translate 5 units left.
38. The vertices of a triangle are A (1, 2), B (2, 4), and C (4, 2). What are the coordinates for A'B' and C' after the following transformation: translate 4 units down.
39. The vertices of a triangle are A (2, 2), B (3, 4), and C (5, 2). What are the coordinates for A'B' and C' after the following transformation: reflect across the x-axis.
40. The vertices of a triangle are A (1, 1), B (2, 3), and C (4, 1). What are the coordinates for A'B' and C' after the following transformation: reflect across the y-axis.
41. The vertices of a triangle are A (2, 3), B (3, 5), and C (5, 3). What are the coordinates for A'B' and C' after the following transformation: perform a 90 degree clockwise rotation about the origin.
42. The vertices of a triangle are A (1, 1), B (2, 3), and C (4, 1). What are the coordinates for A'B' and C' after the following transformation: perform a 90 degree counter-clockwise rotation about the origin.
43. The vertices of a triangle are A (2, 3), B (3, 5), and C (5, 3). What are the coordinates for A'B' and C' after the following transformation: perform a 180° rotation about the origin.