Hon Geometry Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Review Geom 2 Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Write a congruence statement with reason for each of the pairs of Δs below if possible.

|  |  |  |
| --- | --- | --- |
| 1. A  B C D  | 2.  A  B C D  E | 3. A B C D |
| 4.  A  B C D E | 5. A  B C D  | 6. A B C D |

**State the third congruence that is needed to prove that using the**

 **following postulate or theorem**:

|  |  |
| --- | --- |
|  | 7. Given: , , and Using the ASA Congruence Postulate |
|  | XABCYZ8. Given: , , and Using theAAS Congruence Theorem |
|  | XACBYZ |

**Use the diagram at right for #s 20 - 23.**

JFGH is a parallelogram

10. Find *m*HJF \_\_\_\_\_\_\_\_\_\_\_\_

97o

8

3

15

18

11. Find GK \_\_\_\_\_\_\_\_\_\_\_\_

12. Find FJ \_\_\_\_\_\_\_\_\_\_\_\_

13. Find *m*GFJ \_\_\_\_\_\_\_\_\_\_\_\_

**True or false**

14. Opposite angles are congruent in a parallelogram. \_\_\_\_\_\_\_\_\_\_\_\_\_

15. The diagonals of a rectangle are congruent. \_\_\_\_\_\_\_\_\_\_\_\_\_

16. Consecutive angles in a parallelogram are complementary. \_\_\_\_\_\_\_\_\_\_\_\_\_

17. If a quadrilateral has at least 1 pair of parallel sides, then it’s a parallelogram. \_\_\_\_\_\_\_\_\_\_\_\_\_

18. Find x and y in the parallelogram.

 x + 1 5y + 9 *x* = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*y* = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 6y – 5 3x – 9

19. What x-value would make the lines ||? 20. Find the measure of A if the lines are II.

A A

For 21 & 22, find the measures of all s (not just *x* and *a*)

21. 22.



23. 24. Parallelogram

 -2*x* + 8 4x – 22



25. Parallelogram 14x 26.

 12x + 28 How long is segment BA?

27. Use the diagram at right to find the following lengths. B, D, & F are midpoints.

AB =

CE =

BG =

AG =

AD =

Perimeter of ΔACE =

Point G is called a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Segment BE is called a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



28. Use the diagram at right to answer the following:

If DB = 18, then GE = \_\_\_\_\_\_

If GF = 9, then CE = \_\_\_\_\_\_

If GE = x – 3, and BD = x + 8, then *x* = \_\_\_\_\_\_

If the perimeter of ΔCEG = 15, then the perimeter of ΔBDF = \_\_\_\_\_\_

**Proofs!!**

Given: bisects HIJ

Prove: ΔHIK ≅ ΔKIJ

Given: ,

Prove: