DBA8 Review Packet

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Hour: \_\_\_\_\_\_\_

1. Find the parts listed below if CDEF is a parallelogram and

 *DE* = 74 mm, *DG* = 31 mm, and m∠*FCD* = 42°.

Find *CF. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

Find m∠*EFC.\_\_\_\_\_\_\_\_\_\_\_\_*

Find *DF.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

2. Find *a* and *b*. a = \_\_\_\_\_\_\_\_\_\_\_\_\_

 b = \_\_\_\_\_\_\_\_\_\_\_\_\_

3. In kite *PQRS*, m∠*PQR* = 78°, 4. In kite *ABCD*, m∠*DAB* = 54°, and

and m∠*TRS* = 59°. m∠*CDF* = 52°.

Find m∠*PSR* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Find m∠*ABC \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

 .

For numbers 5-8, determine if the quadrilateral must be a parallelogram. Justify your answer.

5. 6.

7. 8.

9. Quad ABDC is a parallelogram. If consecutive angles are congruent, what special type of parallelogram is ABCD? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

10. Quad. ABCD is a parallelogram. If the diagonals are congruent, what special type of parallelogram is ABCD? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

11. A regular polygon has an exterior angle of 60°, Name the polygon?

Find the measure of each interior angle of a regular…

12. 32-gon \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 13. decagon \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Find the sum of the interior angles of a regular…

14. 19-gon \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 15. heptagon \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Find the measure of each exterior angle of a regular…

16. 16-gon \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 17. pentagon \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

18. hexagon \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 19. 18-gon\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

20. List all the theorems (and/or definitions) you could use to prove A quadrilateral above is a parallelogram,

21. Which of the following properties does a Parallelogram have?
I. Opposite angles are congruent.
II. Diagonals are congruent.
III. Diagonals are perpendicular.

 22. Which of the following properties does a Square have?
I. Opposite sides are congruent.
II. All angles are congruent.
III. Each diagonal bisects a pair of opposite angles.

 23. Which of the following properties does a Isosceles Trapezoid have?
I. The angles sum to 360°.
II. All sides are congruent.
III. Opposite angles are congruent.

 24. Which of the following properties does a Kite have?
I. Diagonals bisect each other.
II. The angles sum to 360°.
III. Opposite sides are congruent.

25. In which quadrilaterals do the diagonals bisect each other?

 a. Parallelogram

 b. Rectangle

 c. Trapezoid

 d. A and B only

 e. B and C only

26. The vertices of a quadrilateral are E(1, 1), F(4, 5), G(6, 6), H(3, 2). . Plot the points and draw in the quadrilateral.

Find the slope of each of the 4 sides

 EF = FG =

GH = EH =

Find the length of each of the 4 sides

EF = FG =

GH = EH =

Classification of Quadrilateral: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Answer true or false for the following questions (#27-31).

27. \_\_\_\_\_\_ All squares are rectangles

28. \_\_\_\_\_\_\_ All rhombi are squares

29. \_\_\_\_\_\_\_\_\_\_\_ All isosceles trapezoids have congruent consecutive angles.

30. \_\_\_\_\_\_\_\_\_\_\_ If a quad. is not a rectangle, then it is not a rhombus

31. \_\_\_\_\_\_\_\_\_\_\_ If a quad. is a parallelogram, then it is a rectangle

Find the length of x.

32. x = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 33. X = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

34. If the midsegment of a trapezoid is 22, which of the following are possible lengths for the bases?

1. 11 and 11
2. 2 and 20
3. 31 and 13
4. 4 and 40

Find the measurement of angles the missing angles.

 35. 36



 

37 Rectangle ABCD Given 

\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_

38 Rhombus 

\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_

39 Square EFGH

\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_

40. In parallelogram WXYZ ,  and . Find .

(Hint: Draw a picture)

41. In parallelogram MNOP ,  and . Find .

(Hint: Draw a picture)

42. Which of the following is NOT always true about a parallelogram

A) Opp. sides are always parallel B) Opp. sides are always congruent

C) The diagonals always bisect each other D) The diagonals always bisect the angles

43. Which of the following is NOT always true about a rectangle

A) The diagonals always bisect each other B) Opp. sides are always congruent

C) The diagonals always perpendicular to each other D) it is always Equiangular

44. Three vertices of Parallelogram*ABCD* are *B*(\_3, 3), *C*(2, 7), and *D*(5, 1). Find the coordinates of vertex *A*.

45. Show *JKLM* are *J*(\_2, 4), *K*(\_3, \_1), *L*(2, \_2), and *M*(3, 3) is a square.

