Geometry – Ch. 6 Review Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Date: \_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_\_

1. ABCD is a parallelogram. Find m∠C. 2. JACK is a parallelogram. Find the perimeter.

5x - 2

3x + 8

2x + 6

(2x + 3)°

(3x + 7)°

A

C

K

J

A

B

C

D

3. ABCD is a parallelogram and m∠BAD = 141°. 4. EFGH is an isosceles trapezoid and HF = 13.

 Find m∠1. Find EJ.

F

E

A

B

C

D

24°

1

x + 5

2x - 1

G

H

J

5. RSTW is a rhombus. 6. HJKL is a kite.

 Find each of the following. Find each of the following.

J

m∠RWS = \_\_\_\_\_\_ m∠MJK = \_\_\_\_\_\_

58°

S

R

m∠SYT = \_\_\_\_\_\_ m∠JMH = \_\_\_\_\_\_

M

K

H

10

52°

m∠RST = \_\_\_\_\_\_ m∠JKM = \_\_\_\_\_\_

Y

21

m∠WTS = \_\_\_\_\_\_ m∠HKL = \_\_\_\_\_\_

m∠WRT = \_\_\_\_\_\_ m∠MHL = \_\_\_\_\_\_

ST = \_\_\_\_\_\_\_\_\_\_ m∠HJK = \_\_\_\_\_\_

22°

WT = \_\_\_\_\_\_\_\_\_ HM = \_\_\_\_\_\_\_\_\_\_

T

W

L

R

P

7. PRTW is an isosceles trapezoid.

 ∠WPR = 4x – 2

 ∠PWT = x + 7

 Find m∠PRT = \_\_\_\_\_\_\_\_\_

W

T

8. ABCD is a rectangle.

71°

B

A

 AD = \_\_\_\_\_\_\_\_\_\_ m∠BDC = \_\_\_\_\_\_

E

 AB = \_\_\_\_\_\_\_\_\_\_ m∠DAC = \_\_\_\_\_\_

7

 m∠ABD = \_\_\_\_\_\_ m∠AED = \_\_\_\_\_\_

 m∠DAB = \_\_\_\_\_\_ m∠DEC = \_\_\_\_\_\_

24

D

C

9. In parallelogram EFGH, if EI = 9x – 1 10. In parallelogram ABCD, m∠A = 45°.

 and IG = 7x + 15. Find EG. Find m∠B.

C

D

H

G

I

45°

B

A

F

E

11. In parallelogram EFGH, m∠E = 8x + 6 12. In trapezoid ABCD, $\overbar{EF}$ is a midsegment,

 and m∠G = 5x + 18. Find m∠H. DC = 8, and AB = 12. Find EF.

H

G

E

F

D

E

A

C

F

B

13. In trapezoid GHIJ, $\overbar{KL}$ is a midsegment, 14. The given figure EFGH is a square. If

 JI = x + 5, KL = 3x – 7, and GH = 4x – 5. EG = 8x and FH = 12x – 4, then find EG.

 Find JI.

F

E

K

G

H

L

I

J

I

G

H

15. In parallelogram PQRS, if m∠P = 5x – 8 16. In rectangle ABCD, BE = 3x + 4 and

 and m∠R = 4x + 2, then find the m∠Q. DE = 5x – 8, then find AC.

B

A

E

C

D

Q

R

P

S

17. The given figure ABCD is a rectangle. 18. DEFG is a rhombus. Find m∠E.

 If m∠1 = 68°, then find x.

10x - 13

7x - 28

E

F

G

D

1

x

A

D

E

B

C

Directions: (Multiple Choice) Choose the best answer choice.

19. The perimeter of a square MNOP is 72in

 and NO = 2x + 6. What is the value of x. midsegment $\overbar{EF}$.

1. 15
2. 12
3. 6
4. 9
5. 18

21. What value of x will make the quadrilateral

 a parallelogram?

1. 5

3x

x + 20

1. 10
2. 50
3. 40
4. 60

20. ABCD is a trapezoid. The length of AB = 13, AD = 11, DC = 9, and BC = 5. Find the length of midsegment $\overbar{EF}$.

A

1. 5

E

1. 11

B

1. 16
2. 8
3. 22

D

F

C

22. WXYZ is a rhombus. What is the value of

 x?

8x - 3

5x + 6

3x + 12

W

X

Y

Z

1. 9
2. 3
3. 4
4. $\frac{2}{3}$
5. 1

23. In isosceles trapezoid ABCD, find m∠B.

A

1. 110°

110°

D

1. 55°
2. 70°
3. 60°

C

B

1. 140°

25. In trapezoid KLMN, $\overbar{KL}$ and $\overbar{NM}$ are

1. Legs

L

K

1. Bases
2. Consecutive angles
3. Diagonals

N

M

1. None of these

27. The diagonals of a rectangle must

1. bisect each other
2. be perpendicular
3. be congruent
4. A and B
5. A and C

29. The midsegment of a trapezoid is 9cm long. What choice below is NOT a possible choice for the lengths of the bases.

1. 2, 16
2. 5, 4
3. 8, 10
4. 6, 12
5. 5, 13

24. KLMN is a rectangle. Find the values of x

M

L

K

N

2x - 10

3y + 21

5y + 11

 and y.

1. X = 50, y = 16
2. X = 40, y = 5
3. X = 40, y = 16
4. X = 50, y = 5
5. X = 50, y = 4

26. Find the length of $\overbar{KL}$ in the trapezoid.

4x + 1

K

H

N

L

I

M

1. 22
2. 4

5x + 2

1. 13

27

1. 17
2. 27

28. In rectangle ABCD, AB = $\frac{1}{2}x+6$ and

 CD = $\frac{5}{2}x-2$. Find the value of x.

1. 4
2. $\frac{3}{4}$
3. 5
4. 2
5. $\frac{2}{3}$

30. Which statements below must be true if ABCD is an isosceles trapezoid with a leg $\overbar{AD}$?

 I. $\overbar{AB}≅\overbar{DC}$ III. $\overbar{AB}∥\overbar{DC}$

 II. $\overbar{AD}≅\overbar{BC}$ IV. $\overbar{AD}∥\overbar{BC}$

1. I and III
2. I and IV
3. II and III
4. II and IV
5. I, II, and III

31. Rectangle

(-c, -b)

B

C

D

A

(a, b)

 A ( , )

 C ( , )

33. Isosceles Trapezoid

W

X

Y

Z

(a, 0)

(b, -c)

 W ( , )

 Y ( , )

32. Rectangle

E (-r, s)

(t, ?)

F

(?, -w)

H

G

 F (t, )

 H ( , -w)

 G ( , )

34. Square

B

A

D (-a, ?)

C

 A ( , )

 B ( , )

 C ( , )

 D (-a , )