Please complete all the problems and show all your work.

Distance Formula (problem 1): $d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$

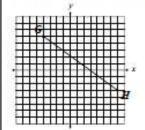
Midpoint Formula (problem 2): $\left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2}\right)$

Geometry Review

QUIZ 1

Name: ______

1. Which is closest to the length of \overline{GH} ?



A. 7.6 B. 10.2

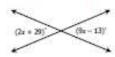
C. 13.6

D. 15.8

JL has coordinates J(-6, 1) and L(-4, 3).
Find the coordinates of the midpoint.



The two lines below intersect as shown.
What is the value of x?



x =

∠4 and ∠B form a linear pair. If
 m∠4 = (6x - 19)* and m∠B = (11x - 22)*,
 find m∠B.

A. 59"

B. 65"

C. 115

D. 121"

Use the same diagram for questions 5-7.

5. Which pair of angles represent corresponding angles?



A. ∠4 and ∠5

B. ∠6 and ∠7

C. 23 and 28

D. ∠1 and ∠3

6. Which information would prove | | | m?

A. ∠2 ≅ ∠5

B. ∠1 ≅ ∠8

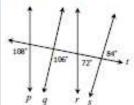
C. 26 = 27

D. $m \angle 3 + m \angle 4 = 180^\circ$

If l | m and m∠8 = 109°, what is m∠5?

m25 =

8. Which pair of lines must be parallel?



A. p and r

B. g and s

C. p and s

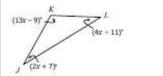
D. q and r

Geometry Review

QUIZ 3

Name:	 	
Date	Per	

1. Given ΔJKL , find $m \angle L$.



- A. 43"
- B. 47"
- C. 52"
- D. 55°
- Given ∆XYZ, if XY ≈ YZ, and m∠Y = 22°, find m∠Z.



 $m\angle Z =$

Which of the following side lengths could form a triangle? Check all that apply.

7,7,15

1

21, 24, 43

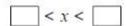
16, 14, 9

☐ 16, 3, 8

D 10, 21, 11

□ 32, 35, 39

4. Jasmine is making a triangular garden. Two sides of the garden measure 6 feet by 11 feet. What is the range of possible lengths, in feet, for the third side, x, of the garden?



 A triathlon event in which participants run, bike, and swim certain distances is mapped out in a triangle as shown below.



Which statement must be true?

- A. The run distance is greater than the swim distance.
- B. The bike distance is less than the run distance.
- C. The swim distance is less than the bike
- D. The bike distance is greater than the run distance
- 6. In \(\Delta DEF\), \(DE = 29\) feet, \(EF = 26\) feet, and \(DF = 32\) feet. Which correctly gives the order of the angle measures from largest to smallest?
 - A. ∠E, ∠F, ∠D
 - B. ∠F, ∠D, ∠E
 - C. ∠D, ∠F, ∠E
 - D. ∠E, ∠D, ∠F
- 7. If $\Delta CMD \cong \Delta RWT$, what must be true?
 - $A. m \angle C = m \angle Y$
 - $\mathbf{B}, m \angle D = m \angle R$
 - C.CD = RY
- D. MD = RW

Given: XZ bisects ∠WXY and ∠WZY.



Based on the information given, which triangle congruence theorem could be used to prove $\Delta XWZ \cong \Delta XYZ$?

- A. Side-Angle-Side
- C. Angle-Angle-Side
- B. Angle-Side-Angle D. Side-Side-Side
- 9. Which pair of triangles cannot be proved congruent?







10. What piece of information would prove $\triangle ACE \cong \triangle BDE$ by Side-Angle-Side?



- A. E bisects AB and CD
- C. AC = DB
- B. AC || DB
- D. ZACE = ZBDE

11. Given: JK || IM, KI || MN, JK ≈ IM



Complete the proof of $\Delta JKL \cong \Delta LMN$ by writing the letter of the reason in the box. Reasons may be used more than once. Not all reasons will be used.

Statements

Reasons

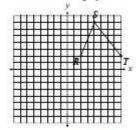
- 1. JK || LM , KL || MN
 - 2.
- 2. ZKJL a ZMLN; ZKLJ a ZMNL
- 3. JK ~ LM
- 3.

1.

- 4. $\Delta JKL \cong \Delta LMN$
- 4.

Reasons Bank:

- A. Given
- B. Reflexive Property
- C. Alternate Interior Angles
- D. Corresponding Angles
- E. Angle-Side-Angle F. Angle-Angle-Side
- 12. ARST is shown on the graph below.



Which set of ordered pairs could represent the vertices of a triangle congruent to ΔRST ?

- A. {(1, -1), (7, -1), (4, -6)}
- B. {(-7, 5), (-2, 8), (-2, 1)}
- C. {(-6, -1), (-1, -5), (-6, -7)}
- D. {(-3, 0), (3, 0), (-1, -6)}