Answers to Fall 2020 Final Exam Review

1) $H, \overrightarrow{HG}$ and $\overrightarrow{HI}$
2) $\angle H, \angle 5, \angle GHI, \angle IHG$
3) corresponding
4) adjacent
5) linear pair, adjacent
6) alternate exterior
7) vertical
8) alternate interior
9) $\overline{JI}$
10) $\angle FAE$
11) obtuse isosceles
12) right scalene
13) right isosceles
14) acute isosceles
15) rotation 180° about the origin
16) rotation 90° counterclockwise about the origin
17) translation: 4 units left and 1 unit up
18) reflection across the y-axis
19) same shape, but different sizes
20) congruent
21) 28°
22) 95°
23) 9
24) 5
25) –4
26) –9
27) $y = -\frac{3}{5}x + \frac{14}{5}$
28) 133°
29) –6
30) –8
31) 19
32) 109
33) $\triangle SUT \cong \triangle LTN$
34) $\triangle UWV \cong \triangle UQR$
35) 95°
36) 90°
37) $(2, -4)$
38) $3\sqrt{13}$
39) ASA
40) ASA
41) HL
42) SSS
43) SAS
44) No
45) quadrilateral
46) quadrilateral, parallelogram, rectangle
47) quadrilateral, parallelogram
48) quadrilateral, parallelogram, rhombus
49) space
50) [Answers will vary]

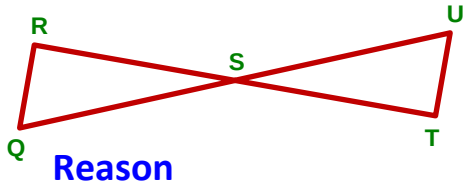
Geometry 1-2 Name _____**KEY**_____

Assignment Period _____ Date _____

Practice Geometric Proofs for Fall Final Exam

Given: $\overline{QR} \parallel \overline{UT}$ **and** $\overline{QR} \cong \overline{UT}$

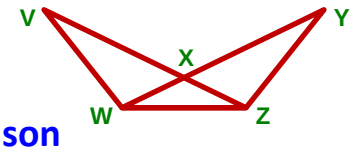
Prove: $\overline{QS} \cong \overline{US}$



Step	Statement	Step	Reason
1)	$\overline{QR} \parallel \overline{UT}$	1)	Given
2)	$\angle R \cong \angle T, \quad \angle Q \cong \angle U$	2)	Transversal with ∥ lines → ≅ alternate interior ∠s
3)	$\overline{QR} \cong \overline{UT}$	3)	Given
4)	$\Delta RSQ \cong \Delta TSU$	4)	ASA (from steps 2 and 3)
5)	$\overline{QS} \cong \overline{US}$	5)	CPCTC

Given: $\overline{VX} \cong \overline{YX}$ **and** $\angle XWZ \cong \angle XZW$

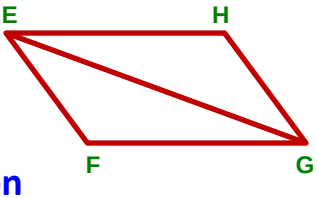
Prove: $\overline{VW} \cong \overline{YZ}$



Step	Statement	Step	Reason
1)	$\overline{VX} \cong \overline{YX}$	1)	Given
2)	$\angle VXW \cong \angle YXZ$	2)	Vertical angles are congruent
3)	$\angle XWZ \cong \angle XZW$	3)	Given
4)	$\overline{WX} \cong \overline{ZX}$	4)	Two congruent Δ angles → congruent opposite sides
5)	$\Delta VXW \cong \Delta YXZ$	5)	SAS (from steps 1, 2, and 4)
6)	$\overline{VW} \cong \overline{YZ}$	6)	CPCTC

Given: $\overline{EH} \parallel \overline{GF}$ **and** $\angle F \cong \angle H$

Prove: $\overline{EF} \parallel \overline{GH}$



Step	Statement	Step	Reason
1)	$\overline{EH} \parallel \overline{GF}$	1)	Given
2)	$\angle HEG \cong \angle FGE$	2)	Transversal with ∥ lines → ≅ alternate interior ∠s
3)	$\angle F \cong \angle H$	3)	Given
4)	$\overline{EG} \cong \overline{EG}$	4)	Reflexive Property
5)	$\Delta EGH \cong \Delta GEF$	5)	AAS (from steps 2, 3, and 4)
6)	$\angle EGH \cong \angle GEF$	6)	CPCTC
7)	$\overline{EF} \parallel \overline{GH}$	7)	Transversal with ≅ alternate interior ∠s → ∥ lines