

Name:

key

Date:

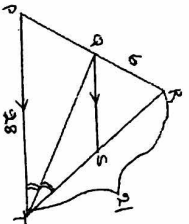
HW #8-11: Test Review

Period:

1. On a separate sheet of paper, complete the following. Staple to this worksheet to turn in.

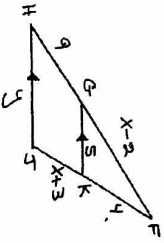
- Pg. 454 #5, 10, 11-15
- Pg. 457 #1, 6, 8-10, 12

2. Find QP, RS, and QS.



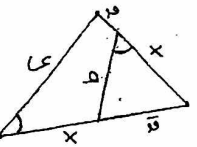
$QP = 8$
 $RS = 9$
 $QS = 12$

3. Find the perimeter of $\triangle HJF$.



42.25

4. Find the values of x and y .

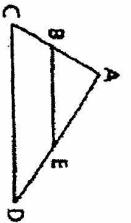


$x = 18$
 $y = 15$

5. A 60m tower casts a 50m shadow, while one half-block away a telephone pole casts a 20m shadow. How tall is the telephone pole?

24 m tall

6. Given $\overline{BE} \parallel \overline{CD}$, $AB = 6$, $BC = 2$, and $BE = 9$, find CD .



$CD = 12$

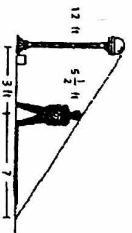
7. Find the geometric mean of 20 and 25 (exact answer)

$10\sqrt{5}$

8. Given $\triangle TVK \sim \triangle XZY$, $TV = 8$, $VK = 9$, $TK = 10$, and $ZY = 4$, find XY .

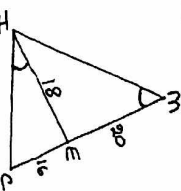
$\frac{40}{9}$

9. A man is 3 ft from a lamppost that is 12 ft high. The man is 5.5 ft tall. How long is his shadow?



$\frac{33}{13} \text{ ft} \approx 2.54 \text{ ft}$

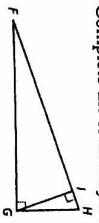
10. Find MI and IC .



$MI = 27$

$IC = 24$

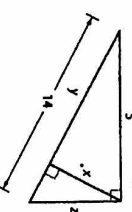
11. Complete the similarity statement for the two triangles. $\triangle HIG \sim \triangle GIE \sim \triangle HGF$



12. Find the geometric mean 12 and 2.4 (exact answer)

$\frac{12\sqrt{5}}{5}$

13. USE GEOMETRIC MEANS to find the values of x , y , and z . (exact answers)



$y = \frac{25}{14}$
 $x = \frac{15\sqrt{19}}{14}$
 $z = 3\sqrt{19}$

14. Solve the equation: $\frac{x+3}{8} = \frac{5}{x-3}$

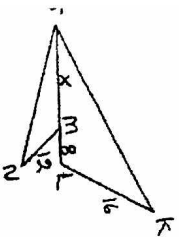
$x = \pm 7$

15. $\triangle QRS \sim \triangle TUV$. Find y .



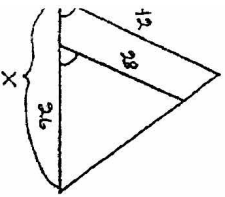
$y = 19$

19. $\triangle JKL \sim \triangle JNM$. Find x .



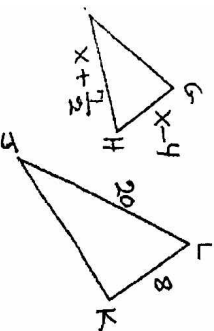
$$x = 24$$

Find x .



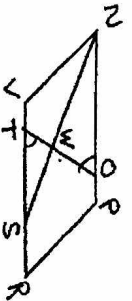
$$x = 39$$

20. $\triangle FGH \sim \triangle JKL$. Find x .



$$x = 9$$

Write a two-column proof.
Given: $\triangle NPRV$ is a parallelogram
Prove: $\triangle NWO \sim \triangle SWT$



Statements

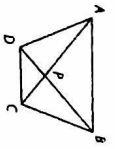
Reasons

1. $\triangle NPRV$ is a parallelogram
2. $\overline{NP} \parallel \overline{VR}$
3. $\angle NWO \cong \angle STW$
4. $\angle NWD \cong \angle SWT$
5. $\triangle NWO \sim \triangle SWT$

2. $\parallel$ -gram $\rightarrow$ opp. sides $\parallel$
3. $\parallel \rightarrow$ alt.-int. $\angle$ s $\cong$
4. vert. $\angle$ s $\cong$
5. $\triangle \sim$

20. Write a two-column proof.

Given: $ABCD$ is a trapezoid
Prove: $\triangle ABP \sim \triangle DCP$



Statements

Reasons

1. $ABCD$ is a trapezoid
2. $\overline{AB} \parallel \overline{CD}$

1. Given
2. trap $\rightarrow$ opp. sides $\parallel$

$$\angle ABP \cong \angle CDP$$

$$\parallel \rightarrow$$
 alt.-int. $\angle$ s $\cong$

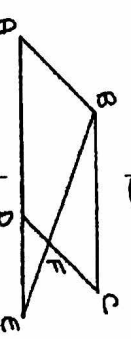
$$\angle APB \cong \angle CPD$$

$$\text{vert. } \angle$$
s $\cong$

$$\triangle ABP \sim \triangle DCP$$

$$\triangle \sim$$

21. Write a two-column proof.
Given: $ABCD$ is a parallelogram
Prove: $\triangle DFE \sim \triangle CFB$



Statements

Reasons

$$\angle C \cong \angle F$$

$$\parallel$$
-gram $\rightarrow$ consec. $\angle$ s supp.

$$\angle CDA \cong \angle FDE$$

$$\text{lin. pair post.}$$

$$\angle C \cong \angle FDE$$

$$\cong$$
 supps $\angle$ s $\cong$

$$\angle CFB \cong \angle FED$$

$$\text{vert. } \angle$$
s $\cong$

$$\triangle DFE \sim \triangle CFB$$

$$\triangle \sim$$

HW #8-11

pg. 454

- ⑤ $\angle Q \cong \angle T$ ($\Rightarrow \cong$)
 $\angle RSQ \cong \angle UST$ (vert. $\angle$ s $\cong$)
 $\triangle RQS \sim \triangle TUS$ (AA~)

⑩ $x = 4$

⑪ NO

⑫ yes

⑬ 11.2

⑭ 10.5

⑮ 7.2

pg. 457

① NO

~~⑥~~ $p = 14$

⑧ 1.6

⑨ 4.8

⑩ NO

~~⑫~~ $p = 2720$ yd
 $A = 448,000$ yd²