Name: Hour: Date:

Geometry PC Review 8.0-8.4

Solve each proportion.

1. $\frac{16}{3} = \frac{20}{t+1}$

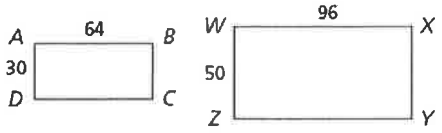
2. $\frac{s-2}{4} = \frac{9}{s-2}$

3. $\frac{2}{3y} = \frac{y}{24}$

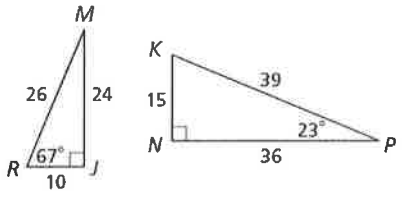
4. An architect's model for a building is $1.4\ m$ long and $0.8\ m$ wide. The actual building is $240\ m$ wide. What is the length of the building?

Determine if the two polygons are similar. If so, write a similarity ratio and a similarity statement.

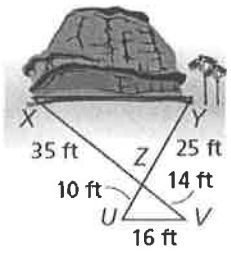
5. Rectangles $ABCD$ and $WXYZ$



6. ΔJMR *and* ΔKNP



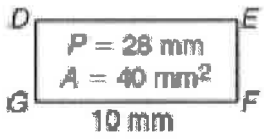
7. A geologist wants to measure the length XY of a rock formation. To do so, she locates points $U, V, X, Y, and\ Z$ as shown. What is XY? **How did you find it?**

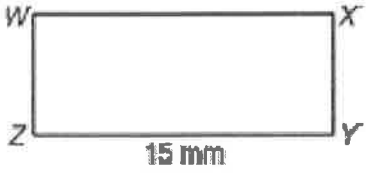


8. A building casts a $103\ foot\ 5\ inch$ shadow at the same time a nearby flagpole casts a shadow that is $34\ feet\ 6\ inches$ long. The flagpole is $32\ feet$ tall. How tall is the building? (Reminder: 12 inches = 1 foot).

9. It is given that rectangle $ABCD \sim EFGH$. The area of rectangle $ABCD$ is $135\ in^2$ and the area of rectangle $EFGH$ is $240\ in^2$. If the width of rectangle $ABCD$ is $9\ in.$, what is the length and width of rectangle $EFGH$?

10. Given that $DEFG \sim WXYZ$, find the following:
    a. perimeter of $WXYZ$





    b. area of $WXYZ$

11. A free-fall ride at an amusement park casts a shadow $43\frac{2}{3}$ ft long. At the same time, a 6-foot-tall person standing in line casts a shadow 2 feet long. What is the height of the ride?

12. Two similar figures have areas of $98\ m^2$ and $72\ m^2$. Find the ratio of their perimeters.

Geometry Name_____ ID: 1

Simplifying Radicals Review

Date_____ Period____

Simplify.

1) $\frac{10\sqrt{14}}{\sqrt{42}}$

2) $\frac{9\sqrt{2}}{\sqrt{5}}$

3) $\frac{\sqrt{48}}{10\sqrt{66}}$

4) $\frac{5\sqrt{3}}{\sqrt{8}}$

5) $-\frac{10}{4\sqrt{10}}$

6) $\frac{11\sqrt{11}}{\sqrt{5}}$

7) $3\sqrt{6} - 2\sqrt{18} - 3\sqrt{24}$

8) $3\sqrt{18} - 3\sqrt{3} - \sqrt{8}$

9) $2\sqrt{2} - \sqrt{2} - 2\sqrt{3}$

10) $2\sqrt{24} + 3\sqrt{6} - 2\sqrt{6}$

11) $-4\sqrt{320n^3}$

12) $-4\sqrt{384n^2}$

13) $-3\sqrt{200a^2}$

14) $3\sqrt{256x^3}$