

Name: \_\_\_\_\_ Period: \_\_\_\_\_

Date: \_\_\_\_\_ Row: \_\_\_\_\_

Assignment #: \_\_\_\_\_

# Ratios of Areas

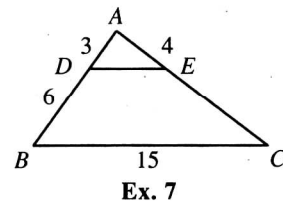
For use after Section 11-7

Complete.

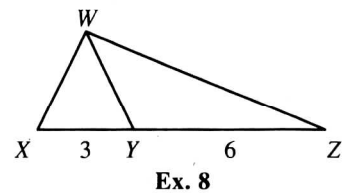
- The ratio of the perimeters of two similar triangles is 3 : 5. The scale factor is \_\_\_\_\_ and the ratio of their areas is \_\_\_\_\_.
- The ratio of the areas of two similar rectangles is 25 : 36. The scale factor is \_\_\_\_\_ and the ratio of their perimeters is \_\_\_\_\_.
- The ratio of the areas of two squares is 16 : 36. The scale factor is \_\_\_\_\_ and the ratio of their perimeters is \_\_\_\_\_.
- Two circles have radii 5 and 7. The ratio of their areas is \_\_\_\_\_.
- $\triangle RST$  and  $\triangle XYZ$  are similar triangles with  $RS = 8$  and  $XY = 12$ . The ratio of their perimeters is \_\_\_\_\_ and the ratio of their areas is \_\_\_\_\_.
- The areas of two circles are  $144\pi$  and  $64\pi$ . The ratio of their circumferences is \_\_\_\_\_.

7. In the figure,  $\triangle ABC \sim \triangle ADE$ .

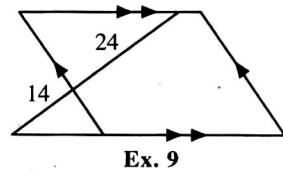
- The perimeter of  $\triangle ABC$  is \_\_\_\_\_ and the perimeter of  $\triangle ADE$  is \_\_\_\_\_.
- The ratio of their perimeters is \_\_\_\_\_.
- The ratio of their areas is \_\_\_\_\_.



8. The ratio of the areas of  $\triangle WXY$  and  $\triangle WYZ$  is \_\_\_\_\_.



9. The ratio of the perimeter of the smaller triangle to the perimeter of the larger triangle is \_\_\_\_\_.



10. The ratio of the areas of  $\triangle ABC$  and  $\triangle ADC$  is \_\_\_\_\_.

11. Two similar polygons have scale factor 3 : 5. The area of the larger polygon is 125.

The area of the smaller polygon is \_\_\_\_\_.

