

Chapter 6 Mid-Chapter Test

(Lessons 6-1 through 6-3)

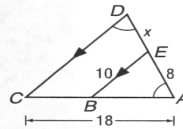
Part I Write the letter for the correct answer in the blank at the right of each question.

1. If quadrilateral $ABCD \sim$ quadrilateral $PQRS$, which proportion must be true? 1. _____
 A. $\frac{AC}{AD} = \frac{PQ}{PS}$ B. $\frac{BC}{CD} = \frac{QR}{RS}$ C. $\frac{AB}{BD} = \frac{PQ}{QR}$ D. $\frac{CD}{AB} = \frac{PQ}{RS}$

2. This fall 126 students participated in the soccer program, while 54 played volleyball. What was the ratio of soccer players to volleyball players? 2. _____
 A. $\frac{3}{4}$ B. $\frac{3}{7}$ C. $\frac{4}{3}$ D. $\frac{7}{3}$

3. The ratio of the measures of the angles of a triangle is 2:3:10. What is the least angle measure? 3. _____
 A. 12 B. 15 C. 24 D. 36

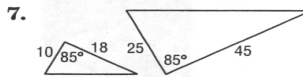
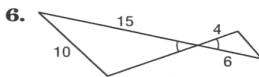
4. Find x . 4. _____
 A. 2 B. 4.8
 C. 6 D. 6.4



5. If rectangle $ABCD \sim$ rectangle $EFGH$, the perimeter of $ABCD$ is 54 centimeters, and the perimeter of $EFGH$ is 36 centimeters, what is the scale factor of $ABCD$ to $EFGH$? 5. _____
 A. $\frac{2}{3}$ B. $\frac{3}{2}$ C. $\frac{3}{5}$ D. $\frac{5}{3}$

Part II

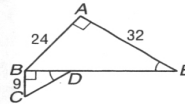
For Questions 6 and 7, determine whether each pair of triangles is similar. Justify your answer.



6. _____

7. _____

8. If $\triangle ABE \sim \triangle BCD$, find DE and the scale factor of $\triangle ABE$ to $\triangle BCD$.



8. _____

9. Quadrilateral $ABCD \sim$ quadrilateral $RSUV$, $m\angle ABC = 120$, and the scale factor of $ABCD$ to $RSUV$ is $\frac{8}{5}$. What is $m\angle RSU$? 9. _____

10. **MODELS** Sasha made a model of a clipper ship. If her model has a length of 18 inches, and the original ship had a length of 160 feet and a width of 32 feet, what should be the width of her model? 10. _____