

# Chapter 7 Review

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

1. There are 15 plums and 9 apples in a fruit bowl. What is the ratio of apples to plums?

- A 3:5      B 3:8      C 5:3      D 8:3

1. A

2. The scale drawing of a porch is 8 inches wide by 12 inches long. If the actual porch is 12 feet wide, what is the length of the porch?

- F 8 ft      G 10 ft      H 16 ft      J 18 ft

2. J

3. Solve  $\frac{5}{6} = \frac{4}{x}$ .

- A 4.6      B 4.8      C 5      D 7

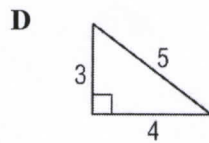
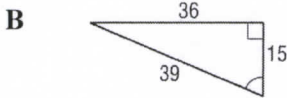
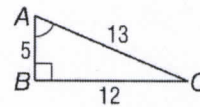
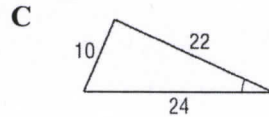
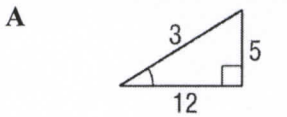
3. B

4. Two of the bulbs in a sample of 30 were defective. If the sample was representative, find the number of bulbs expected to be defective in a case of 450.

- F 24      G 30      H 36      J 45

4. G

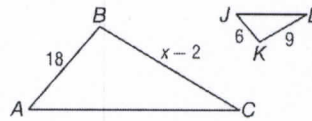
5. Find the triangle similar to  $\triangle ABC$  at the right.



5. B

6. Find the value of  $x$  if  $\triangle ABC \sim \triangle JKL$ .

- F 10      H 25  
G 14      J 29



6. J

7. Quadrilateral  $ABCD \sim$  quadrilateral  $PQRS$ . If  $AB = 10$ ,  $BC = 6$ ,  $PS = 12$ , and  $QR = 4$ , find the scale factor of  $ABCD$  to  $PQRS$ .

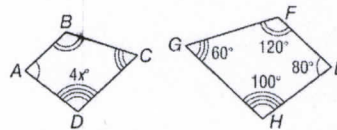
- A  $\frac{1}{2}$       B  $\frac{3}{2}$       C  $\frac{5}{3}$       D  $\frac{5}{6}$

7. B

8. Quadrilateral  $ABCD \sim$  quadrilateral  $EFGH$ .

Find the value of  $x$ .

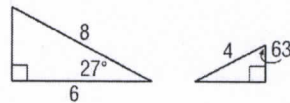
- F 15      H 25  
G 20      J 30



8. H

9. Which theorem or postulate can be used to prove that these two triangles are similar?

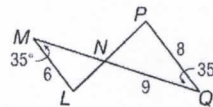
- A AA Similarity      C SSA Similarity  
B SAS Similarity      D SSS Similarity



9. A

10. Find  $MN$ .

- F  $5\frac{1}{3}$       G  $6\frac{3}{4}$       H 7      J 12



10. G

# Chapter 7 Review

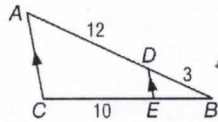
11. A 5-foot tall student cast a 4-foot shadow. If the tree next to her cast a 44-foot shadow, what is the height of the tree?

- A  $35\frac{1}{5}$  ft      B 45 ft      C  $51\frac{1}{2}$  ft      D 55 ft

11. D.

12. In  $\triangle ABC$ ,  $\overline{DE} \parallel \overline{AC}$ . If  $AD = 12$ ,  $BD = 3$ , and  $CE = 10$ , find  $BE$ .

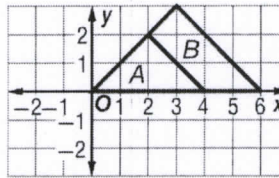
- F 1      H 2  
G  $1\frac{1}{2}$       J  $2\frac{1}{2}$



12. J.

13. What is the scale factor of the dilation of  $A$  to  $B$ ?

- A 1      C 2  
B  $\frac{3}{2}$       D 6



13. C.

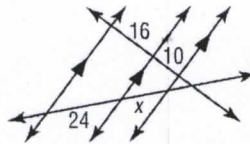
14.  $\triangle FGH \sim \triangle PQR$ ,  $FG = 6$ ,  $PQ = 10$ , and the perimeter of  $\triangle PQR$  is 35. What is the perimeter of  $\triangle FGH$ ?

- F 21      G 27      H 31      J  $58\frac{1}{3}$

14. F.

15. Find the value of  $x$ .

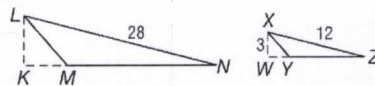
- A 14      C 16  
B 15      D 18



15. B.

16.  $\triangle LMN \sim \triangle XYZ$  with altitudes  $\overline{KL}$  and  $\overline{WX}$ . Find  $KL$ .

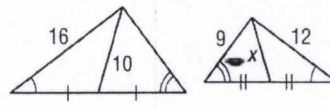
- F 6      H 9  
G 7      J 19



16. G.

17. Find the value of  $x$ .

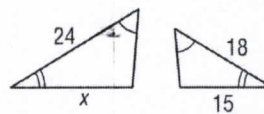
- A 5      C  $6\frac{1}{2}$   
B 6      D  $7\frac{1}{2}$



17. D.

18. Find the value of  $x$ .

- F 16      H 20  
G 18      J 21



18. H.