

Chapter 7 Test Prep/Practice

Multiple Choice

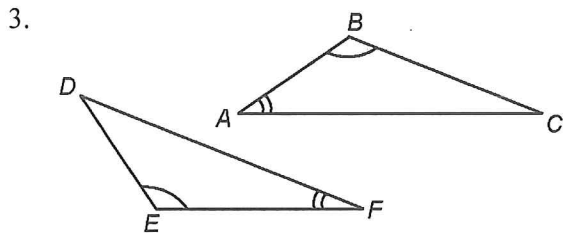
Identify the choice that best completes the statement or answers the question. Please excuse the format. I didn't want this to be on 10 pages for one HW assignment.

1. There are 84 boys in a freshman class of 146 students. Find the ratio of boys to girls.
 a. 42:73 b. 31:42 c. 42:31 d. 73:42

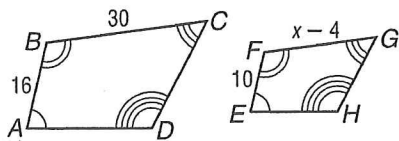
Solve the proportion.

2. $\frac{x+1}{x-1} = \frac{14}{20}$
 a. $-\frac{3}{17}$ b. $\frac{10}{7}$ c. $\frac{7}{10}$ d. $-\frac{17}{3}$

Determine whether each pair of triangles is similar. Justify your answer.



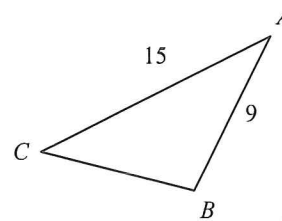
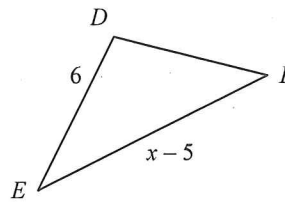
- a. yes; $\triangle EDF \sim \triangle BCA$ by AA Similarity b. yes; $\triangle EDF \sim \triangle ABC$ by AA Similarity
 c. yes; $\triangle EDF \sim \triangle BCA$ by ASA Similarity d. No; there is not enough information to determine similarity.
4. If $ABCD \sim EFGH$, find x .



- a. 18.75 b. 20 c. 22.75 d. 28

Identify the similar triangles. Find x .

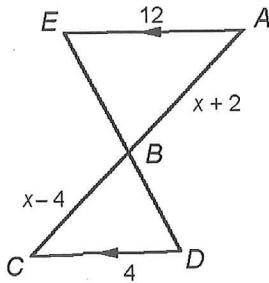
5.



- a. $\triangle DEF \sim \triangle BAC$; $x = 15$ b. $\triangle DEF \sim \triangle BAC$; $x = 20$
 c. $\triangle DEF \sim \triangle ABC$; $x = 15$
 d. $\triangle DEF \sim \triangle ABC$; $x = 20$

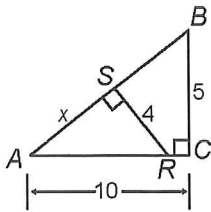
Find x and the measures of the indicated parts.

6. AB and AC



- a. $x = 7, AB = 12, AC = 9$
- b. $x = 7, AB = 9, AC = 12$
- c. $x = -5, AB = -3, AC = -9$
- d. $x = -5, AB = -9, AC = -3$

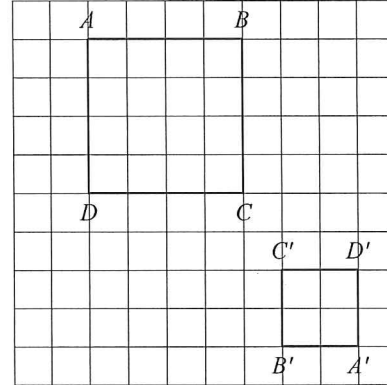
7. AS



- a. $x = 8, AS = 8$
- b. $x = 2, AS = 2$
- c. $x = 12.5, AS = 12.5$
- d. $x = 8, AS = 10$

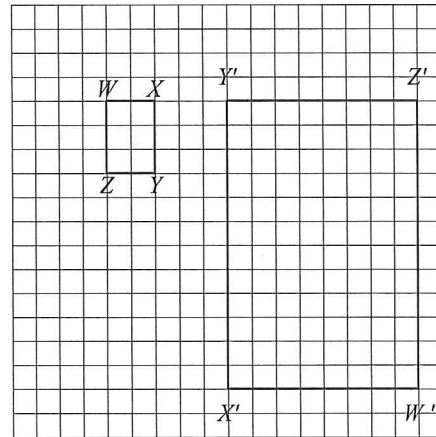
Determine the scale factor for each dilation. Determine whether the dilation is an enlargement, reduction, or congruence transformation.

8.



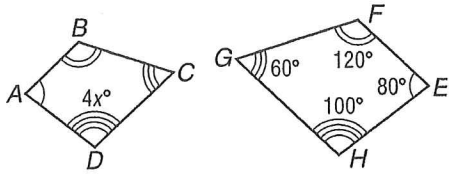
- a. 2; enlargement
- b. 2; reduction
- c. $\frac{1}{2}$; enlargement
- d. $\frac{1}{2}$; reduction

9.



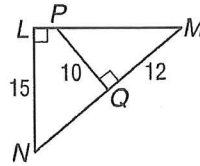
- a. 4; enlargement
- b. 4; reduction
- c. $\frac{1}{4}$; enlargement
- d. $\frac{1}{4}$; reduction

10. Quadrilateral $ABCD \sim$ quadrilateral $EFGH$. Find x .



- a. 15 b. 20 c. 25 d. 30

Refer to the figure below.

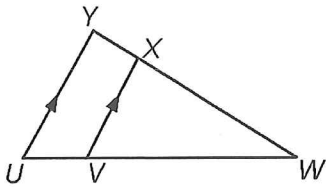


11. Identify the similar triangles.
 a. $\triangle LMN \sim \triangle MPQ$ b. $\triangle LMN \sim \triangle QMP$
 c. $\triangle LMN \sim \triangle QPM$ d. $\triangle LMN \sim \triangle PQM$
12. Find LM .
 a. 16 b. 17 c. 18 d. 20

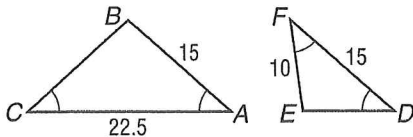
Short Answer

Determine whether each pair of triangles is similar. Justify your answer.

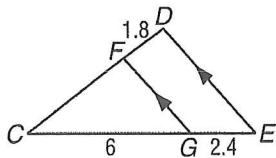
13.



14. Determine whether $\triangle ABC \sim \triangle DEF$. Justify your answer.



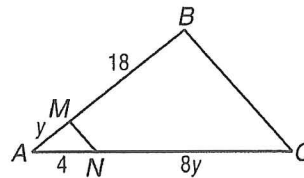
15. Find CD .



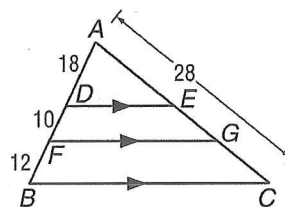
16. When a 5-foot vertical pole casts a 3-foot, 4-inch shadow, an oak tree casts a 20-foot shadow. Find the height of the tree.

17. The ratio of the measures of the three sides of a triangle is 3:4:6. If the perimeter is 91, find the measure of the longest side.

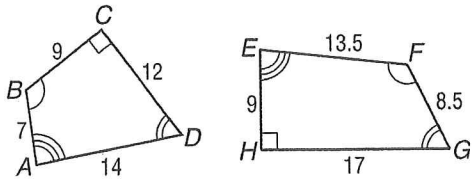
18. Find y so that $\overline{MN} \parallel \overline{BC}$.



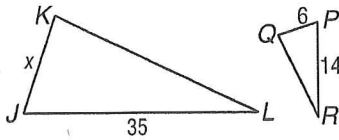
19. Find CG . (it will be good practice to find EG and AE too!!!)



20. Determine whether quadrilateral $ABCD \sim$ quadrilateral $EFGH$. Justify your answer.

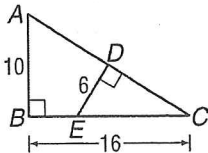


21. If $\triangle JKL \sim \triangle PQR$, find x .

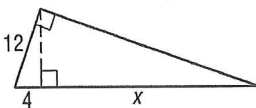


22. $\triangle ABC \sim \triangle PQR$, $AB = 18$, $BC = 20$, $AC = 22$, and $QR = 25$. Find the perimeter of $\triangle PQR$.

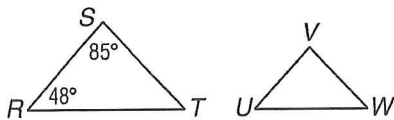
23. In $\triangle ABC$, $AB = 10$, $BC = 16$, $\overline{DE} \perp \overline{AC}$, and $DE = 6$. Find CD .



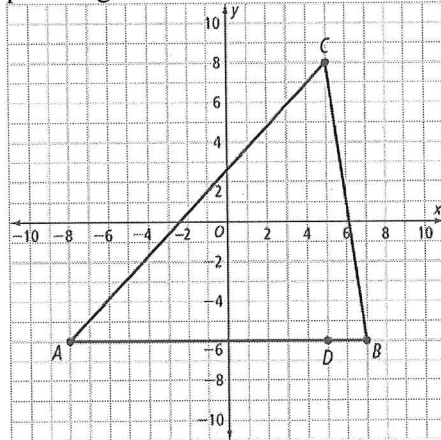
24. Find x .



25. If $\triangle RST \sim \triangle UVW$, find $m\angle W$.



26. Find the area of the image, in square units, if the pre-image shown below is then dilates by a SF of 2.



27. These are the answers from the book test generator.

I did not verify the solutions.

Chapter 7 Test Prep/Practice

Answer Section

MULTIPLE CHOICE

1. C
2. D
3. A
4. C
5. A
6. B
7. A
8. D
9. A
10. C
11. B
12. C

SHORT ANSWER

13. yes; $\triangle UYW \sim \triangle VYW$ by AA Similarity
Two polygons are similar if and only if their corresponding angles are congruent and the measures of their corresponding SLR=.
14. Yes; AA sim
15. 6.3
16. 30 ft
17. 42
18. 3
19. 8.4
20. No; the corresponding \angle s are not congruent
21. 15
22. 75
23. 9.6
24. 32
25. 47
26. $A = \frac{1}{2}bh$ $b=AB=15$ units
 $h=DC=13$ units
The are doubled by the SF
 $A = \frac{1}{2}BH$ $B=30$ $H=26$
 $A = 390$ Square units