

Name:

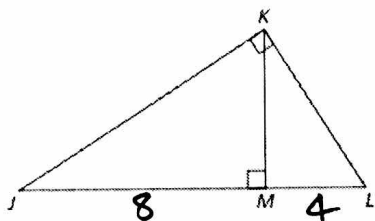
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HW #8-10: Chapter 8 "Warm-Ups"

14. If $JL = 12$ and $JM = 8$, find ML , KM , JK , and KL . Exact answers.



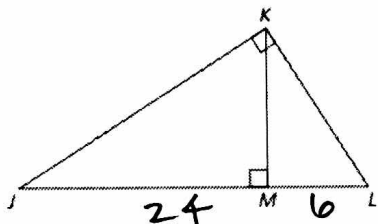
$$KM = 4\sqrt{2}$$

$$JK = 4\sqrt{6}$$

$$ML = 4$$

$$KL = 4\sqrt{3}$$

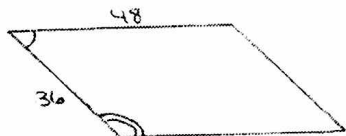
15. If $ML = 6$ and $JM = 24$, find KL and KM .



$$KL = 6\sqrt{5}$$

$$KM = 12$$

16. Are these parallelograms similar? Explain.

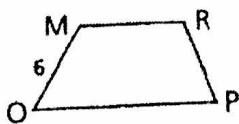
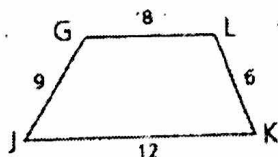


yes; $k = \frac{3}{4}$ or $k = \frac{4}{3}$

17. Always/Sometimes/Never

- If two triangles are similar, then they are congruent. S
- If two triangles are congruent, then they are similar. A
- An obtuse triangle is similar to an acute triangle. N
- Two right triangles are similar. S
- Two equilateral polygons are similar. S
- Two equilateral triangles are similar. A
- Two rectangles are similar if neither is a square. S

18. Given $GJKL \sim MOPR$, find OP , PR , and MR .



$$MR = \frac{16}{3}, \quad PR = 4, \quad OP = 8$$

19. If two similar kites have perimeters of 21 and 28, what is the ratio of the measures of their corresponding sides?

$$\frac{3}{4} \text{ or } \frac{4}{3}$$

20. If two similar triangles have corresponding sides with measures 6 and 10, what is the ratio of their corresponding sides? What is the ratio of their areas?

$$\hookrightarrow \frac{3}{5} \text{ or } \frac{5}{3}$$

$$\hookrightarrow \frac{9}{25} \text{ or } \frac{25}{9}$$

21. Solve for x. $\frac{(x+1)^2}{4} = \frac{5-2x}{3}$

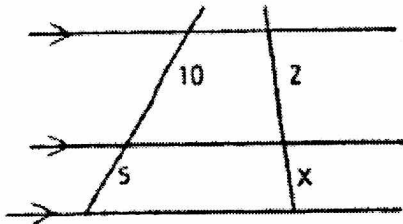
$$x = -\frac{17}{3} \text{ or } x = 1$$

~~XXXXXXXXXX~~

22. Solve for x. $\frac{x+10}{x^2-2} = \frac{4}{x}$

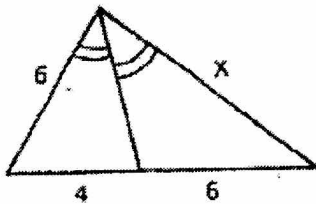
$$x = -\frac{2}{3} \text{ or } x = 4$$

23. Solve the x in the diagram shown below.



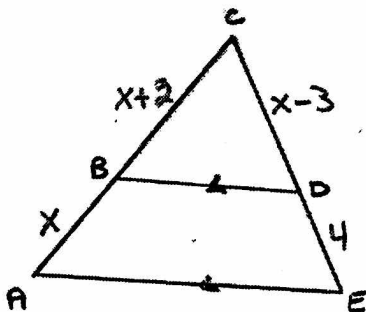
$$x = 1$$

24. Solve for x in the diagram shown below.



$$x = 9$$

25. Find AC.



$$AC = 18$$