

Cumulative Review

For use after Chapters 1–9

Find the length of \overline{AB} . Write your answer to the nearest tenth. (1.3)

1. $A(5, 2), B(-7, 4)$

2. $A(-3, 1), B(5, 9)$

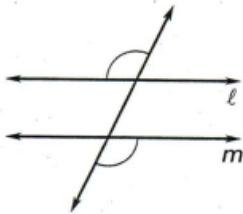
Write the (a) inverse and (b) converse of the statement. (2.1)

3. If $m\angle 1 = 110^\circ$, then $\angle 1$ is an obtuse angle.

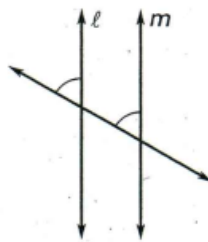
4. If the sun is shining, then it is not raining.

State the postulate or theorem you would use to prove $l \parallel m$. (3.3)

5.



6.

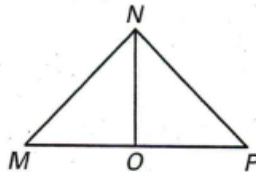


Prove using a two-column format. (4.3, 4.4, 4.6)

7. Given: $\overline{MN} \cong \overline{PN}$

O is a midpoint of \overline{MP} .

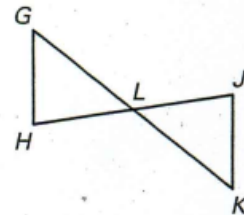
Prove: $\triangle MON \cong \triangle PON$



8. Given: $\overline{GH} \parallel \overline{KJ}$

$\overline{LG} \cong \overline{LK}$

Prove: $\overline{GH} \cong \overline{KJ}$

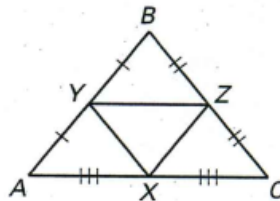


Complete the following, using the given information. (5.4)

$XZ = 4, BC = 10$, perimeter of $\triangle XYZ = 16$

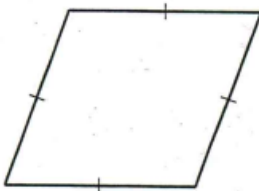
9. $AB = \underline{\hspace{1cm}} ?$

10. Perimeter of $\triangle ABC = \underline{\hspace{1cm}} ?$

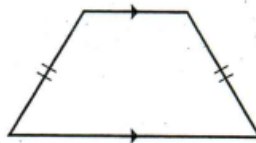


Give the most descriptive name of the figure. (6.6)

11.



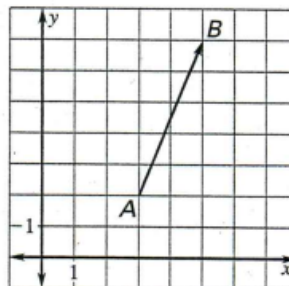
12.



Give the coordinates of the image of \overrightarrow{AB} using the translation vector described. (7.4)

13. $\langle -2, 3 \rangle$

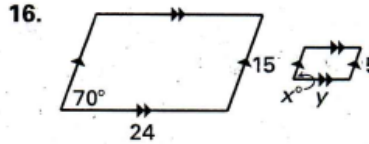
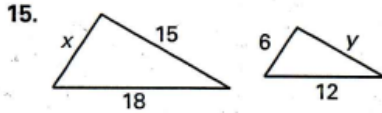
14. $\langle 3, 1 \rangle$



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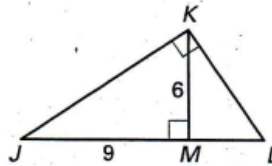
The two polygons are similar. Find x and y . (8.3)



Find the given length. Round decimals to the nearest tenth. (9.1)

17. Find ML .

18. Find KL .

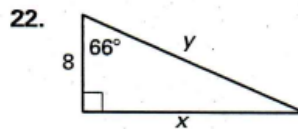
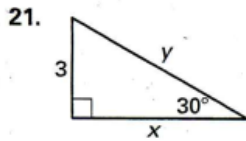


The numbers below represent the sides of a triangle. Classify the triangle as *right*, *acute* or *obtuse*. (9.3)

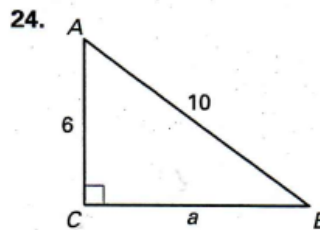
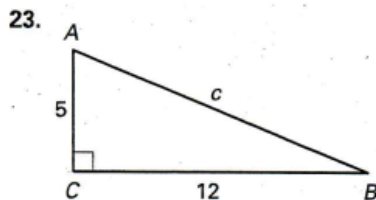
19. 5, 8, 10

20. 5, 12, 13

Find the value of the given variables. Write answers in simplest radical form if possible. (9.4, 9.5)



Solve the right triangle. Round your answers to the nearest tenth. (9.6)



Write the component form of the vector. Find its **magnitude**, round your answer to the nearest tenth. (9.7)

25. \vec{AB}

26. \vec{PQ}

