

Cumulative Review

Chapters 1–7

For Exercises 1–15, choose the correct letter.

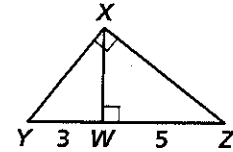
1. Find XW .

A. 4

B. $\frac{9}{5}$

C. $\frac{25}{3}$

D. $\sqrt{15}$



2. What can you conclude from the diagram?

F. $\angle Y \cong \angle Z$

G. $\triangle XYW \sim \triangle ZYX$

H. $\triangle XWY \sim \triangle XWZ$

J. none of the above

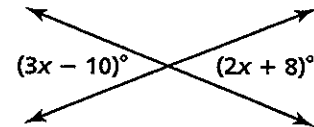
3. Find the value of x .

A. 18

B. 3.6

C. 44

D. 36.4



4. Points T and P lie on circle C . $CT = 10$ and $m\angle PCT = 90$. Find the length of \overline{TP} .

F. $10\sqrt{2}$ in.

G. 5π in.

H. 10π in.

J. 20π in.

5. Lines l_1 and l_2 intersect to form congruent supplementary angles. What can you conclude?

A. Lines l_1 and l_2 are skew.

B. Lines l_1 and l_2 are parallel.

C. Lines l_1 and l_2 are perpendicular.

D. none of the above

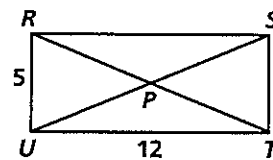
6. $RSTU$ is a rectangle. Find RP .

F. 13

G. 8.5

H. 6.5

J. cannot be determined from the information given



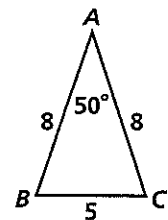
7. Find $m\angle B$.

A. 50

B. 80

C. 71

D. 65



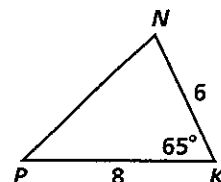
8. What can you conclude from the diagram?

F. $m\angle P < m\angle N$

G. $m\angle N < 65$

H. $m\angle P < 65$

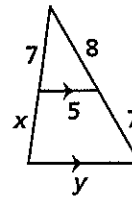
J. $NK < NP$



Cumulative Review (continued)

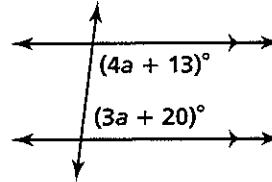
Chapters 1-7

9. Refer to the triangle at the right to find the value of x .
 A. 8 B. $\frac{49}{8}$ C. $\frac{56}{5}$ D. 7



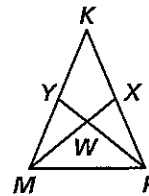
10. Refer to the triangle at the right to find the value of y .
 F. $\frac{35}{8}$ G. 12 H. 15 J. $\frac{75}{8}$

11. Refer to the figure at the right to find the value of a .
 A. 7 B. 21 C. 84 D. 97

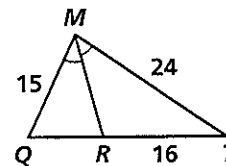


12. Which quadrilateral must have perpendicular diagonals?
 F. parallelogram G. rectangle H. rhombus J. isosceles trapezoid
13. The diagonals of which quadrilateral bisect each other?
 A. parallelogram B. rectangle C. rhombus D. all of the above

14. $\triangle KMP$ is isosceles with $KM = KP$. \overline{MX} and \overline{PY} are angle bisectors. What can you conclude?
 F. $\triangle WMP$ is isosceles. G. \overline{MX} and \overline{PY} are medians.
 H. \overline{MX} and \overline{PY} are altitudes. J. none of the above



15. Refer to the triangle at the right to find the measure of QR .
16. **Writing** Explain the statement "Congruent triangles are similar, but similar triangles need not be congruent."



17. **Open-Ended** Draw a quadrilateral with congruent perpendicular diagonals that is not a parallelogram.
18. State the contrapositive of the statement "If pigs can fly, then cows have six legs."

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