Name _____ Class _____ Date _____

Cumulative Review

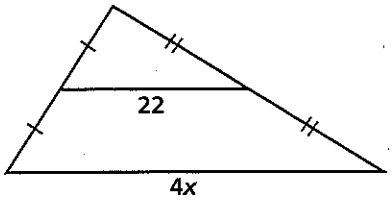
Chapters 1–5

For Exercises 1–14, choose the best answer.

1. At the local bakery a small chocolate chip cookie has a diameter of 2 in. How much more cookie do you get if you buy a supercookie with a diameter of 6 in.?

A. 8π in.^{2} **B.** 10π in.^{2} **C.** 32π in.^{2} **D.** 40π in.^{2}

2. Find the value of x in the diagram at the right.

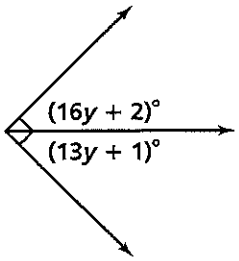


F. 5.5 **G.** 11 **H.** 22 **J.** 44

3. Which side lengths would *not* make a triangle?

A. 2, 4, 5 **B.** 3, 8, 6 **C.** 4, 5.1, 9 **D.** 4, 3, 7

4. Find the value of y in the diagram at the right.



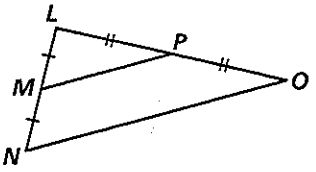
F. $-\frac{1}{3}$ **G.** $\frac{1}{3}$ **H.** 3 **J.** 5

5. The lengths of the sides of $\triangle ABC$ are $AB = 8$, $BC = 6$, and $AC = 10$. Put the angles in order from smallest to largest.

A. $\angle A, \angle B, \angle C$ **B.** $\angle A, \angle C, \angle B$

C. $\angle B, \angle C, \angle A$ **D.** $\angle B, \angle A, \angle C$

6. What can you conclude about the diagram at the right?



F. $\triangle LNO$ is isosceles. **G.** $\overline{MP}$ is a midsegment.

H. $\angle LMP \cong \angle LPM$ **J.** $\frac{1}{2}MP = NO$

7. What is the next number in the sequence?

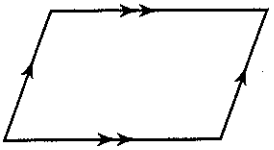
128, 64, 32, 16, 8, . . .

A. 5 **B.** 10 **C.** 15 **D.** 4

8. Which is not a point of concurrency?

F. centroid **G.** orthocenter **H.** median **J.** incenter

9. Which are the appropriate names for the polygon shown at the right?



I. quadrilateral II. rectangle III. parallelogram IV. rhombus

A. I and IV **B.** I and II **C.** III and IV **D.** I and III

10. Which line is perpendicular to $y = \frac{1}{3}x + 9$?

F. $3y = -9x + 1$ **G.** $4y = 12x - 7$

H. $3y = -6x + 11$ **J.** $6y = 2x - 1$

11. What is the inverse of the statement "If the sky is blue, then it is not raining"?

A. If the sky is not blue, then it is raining.

B. If it is not raining, then the sky is blue.

C. If it is raining, then the sky is not blue.

D. If the sky is blue, then it is raining.

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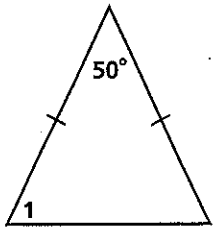
Name _____ Class _____ Date _____

Cumulative Review (continued)

Chapters 1–5

12. Find $m\angle 1$ in the diagram at the right.



F. 50 **G.** 55

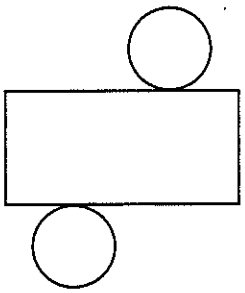
H. 60 **J.** 65

13. Complete the statement: In $\triangle LMN$, $LM + LN$ ___?___.

A. $< LN$ **B.** $> MN$

C. $= LN$ **D.** $> LN + LM$

14. What kind of solid is represented by the net?

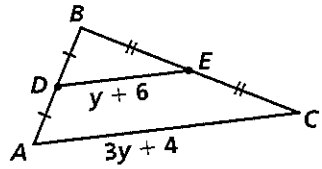


F. cylinder **G.** cone

H. sphere **J.** pyramid

15. If $LN = 42$, find LM.

16. Find AC.



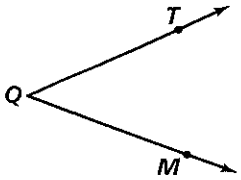
17. Write a counterexample for the statement, "If you are in the principal's office, then you are in trouble."

18. **Writing** Use indirect reasoning to show that an equilateral triangle cannot be an obtuse triangle.

19. **Open-ended** Sketch and label two different figures that have equal perimeters.

20. Find the coordinates of the center of a circle with diameter $\overline{QR}$ so that $Q(2, 1)$ and $R(-4, 3)$.

21. Construct an angle bisector of $\angle TQM$.



22. The coordinates of $\triangle ABC$ are $A(4, 1)$, $B(2, -4)$, and $C(3, 8)$. Write the angles in order from smallest to largest.

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