Name _____ Class _____ Date _____

Cumulative Review

Chapters 1–2

Use the following conditional for Exercises 1–3.

If something is a bird, then it can fly.

1. _____ hypothesis **a.** it can fly

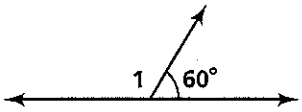
2. _____ conclusion **b.** something is a bird

3. Which is a counterexample of this conditional?

A. sparrow **B.** cardinal **C.** ostrich **D.** crow

4. In the diagram at the right, what is the measure of $\angle 1$?

F. 60° **G.** 120° **H.** 30° **J.** 70°



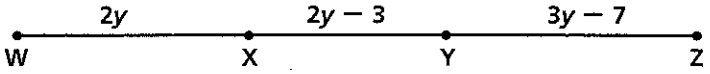
5. What is the length of $\overline{AB}$ with endpoints at $A(5, -1)$ and $B(2, 3)$?

A. 5 **B.** 7 **C.** 9 **D.** 25

6. Deshonda is selling granola bars to support her school band. On Monday she sells 16 bars, on Tuesday she sells 8 bars, and on Wednesday she sells 4 bars. If the pattern continues, how many bars will she sell on Thursday?

F. 0 **G.** 1 **H.** 2 **J.** 4

7. If $WZ = 46$, find the value of y.



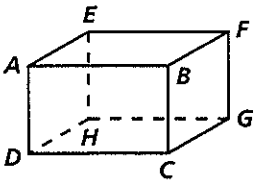
A. $6\frac{3}{4}$ **B.** 7 **C.** 8 **D.** 9

8. Which can be the intersection of two distinct lines?

F. point **G.** line **H.** plane **J.** ray

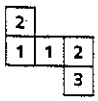
9. Refer to the diagram at the right. Which segment is *not* parallel to $\overline{EF}$?

A. $\overline{AB}$ **B.** $\overline{DC}$ **C.** $\overline{HG}$ **D.** $\overline{BF}$

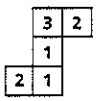


10. Refer to the diagram at the right. Which is the correct foundation drawing for the isometric drawing?

F.

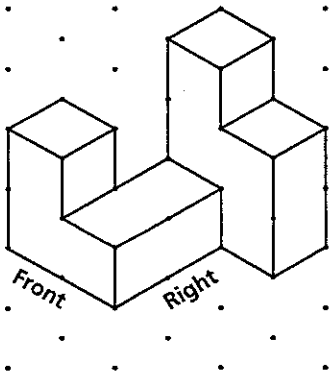


G.



H.

J.



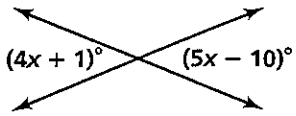
Name _____ Class _____ Date _____

Cumulative Review (continued)

Chapters 1–2

11. What is the value of x?

A. 9 **B.** -10 **C.** 11 **D.** -8



Ex. 11

12. Find the next two terms of the sequence.

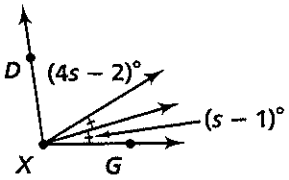
$10, -14, 18, -22, \ldots$

F. $-26, 30$ **G.** $-30, 26$ **H.** $26, 30$ **J.** $26, -30$

13. Which equation follows from $\frac{1}{4}x - 1 = 3$ by the Addition Property of Equality?

A. $x - 4 = 12$ **B.** $\frac{1}{4}x - 4 = 0$ **C.** $\frac{1}{4}x = 4$ **D.** $x - 16 = 0$

14. Refer to the diagram at the right. If $m\angle DXG = 98$, find the value of s.



Ex. 14

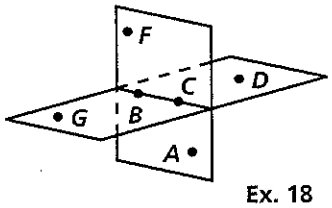
15. Write the converse of the following statement, and decide whether it is true or false. *If a polygon is a triangle, then it has three sides.*

16. Find the area of a circle with a circumference of 28π m.

17. Why is the following statement not a good definition?

A linear pair is two angles whose sum is 180°.

18. What is the intersection of plane ABF and plane BDG?



Ex. 18

19. What property justifies the following?

If $2x + 4y = 10$ and $x = y$, then $2y + 4y = 10$.

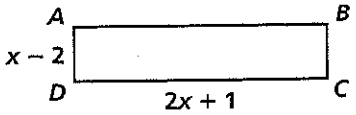
Find the coordinates of the center of a circle with diameter $\overline{QR}$.

20. $Q(2, 1), R(-4, 3)$

21. $Q(-5, -1), R(1, 5)$

22. What is the length of the segment with endpoints $M(2, -1)$ and $N(-6, 8)$?

23. Find x if the perimeter of rectangle $ABCD$ is 22.



Ex. 23

For the given dimensions, find the area of each figure to the nearest hundredth.

24. rectangle:
$b = 10$ m
$h = 6$ m

25. circle:
$d = 22$ cm

26. **Writing** Explain why a point that is equidistant from the endpoints of a segment is *not* the midpoint of the segment.