NAME _____ DATE _____

Cumulative Review

For use after Chapter 1

Describe a pattern in the sequence of numbers. Predict the next number (1.1)

1. 2, 6, 14, 30, . . .
2. 1, 4, 9, 16, . . .

3. 96, 48, 24, 12, . . .
4. 3125, 625, 125, 25, . . .

Complete the conjecture based on the pattern you observe in these specific cases. (1.1)

5. Conjecture: The product of two consecutive positive integers is always __?__ .

$$3 \times 4 = 12 \qquad 7 \times 8 = 56$$
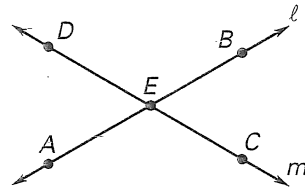$$4 \times 5 = 20 \qquad 10 \times 11 = 110$$

6. Conjecture: The square of any odd integer is always __?__ .

$$7^2 = 49 \qquad 11^2 = 121 \qquad 13^2 = 169$$
$$9^2 = 81 \qquad 15^2 = 225 \qquad 17^2 = 289$$

Decide whether the statement is *true* or *false*. (1.2)

7. Point C lies on line l.

8. Point E lies on $\overline{AB}$.

9. Points D, A, and B are collinear.

10. Points D, A, and B are coplanar.

11. Point C lies on line m.

12. Lines l and m intersect at E.

Find the length of each segment. (1.3)

13. $AD = 30$

$AB = 2x + 2$

$BC = 4x - 1$

$CD = 3x - 7$

Find the distance between each pair of points. Round your answers to the nearest hundreth. (1.3)

14. $MN = $ __?__

15. $NO = $ __?__

16. $OP = $ __?__

17. $PM = $ __?__

18. $MO = $ __?__

19. $NP = $ __?__

Review and Assess