NAME _____ DATE _____ PERIOD _____

1 Chapter 1 Review, enriched

SCORE _____

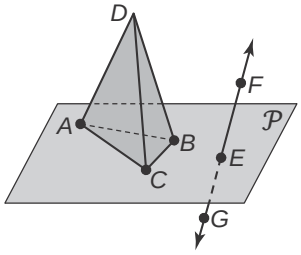
Assessment

You may write on the test. Put all final answers on the scantron.

1. How many planes can be drawn through any three noncollinear points?

1. _____

For Exercises 2 and 3, use the figure at the right.



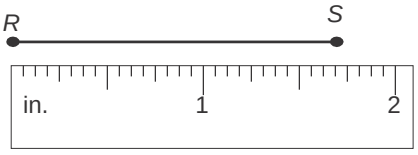
2. T/F, D is collinear with A and B.

2. _____

3. Name the intersection of the plane $\mathcal{P}$ and the plane that contains points A, *C*, and *D*.

3. _____

4. Find the length of $\overline{RS}$.

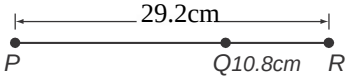


4. _____

5. Find the distance between *P*(–4,6) and *Q*(8,-1).

5. _____

6. Find the length of $\overline{PQ}$.



6. _____

7. Find the value of *y* if *B* is between *A* and *C*, *AB* is 3*y*, *BC* is 5*y*, and *AC* is 56.

7. _____

8. Find the distance between *P*(3,10) and *Q*(7,7). $\sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$

8. _____

9. Find the coordinates of the midpoint of $\overline{LB}$ if *L*(11,8) and *B*(-4,3). $(\frac{x_1+x_2}{2}, \frac{y_1+y_2}{2})$

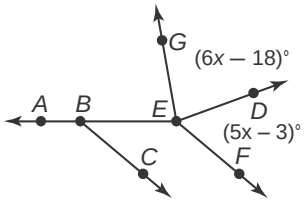
9. _____

10. The midpoint of a line segment AB is (2,3). Point A coordinates are (-11,-1) and point B coordinates are (x,4). Find the value of x.

10. _____

1 Chapter 1, enriched *(continued)*

For Exercises 11 and 12, use the figure at the right.



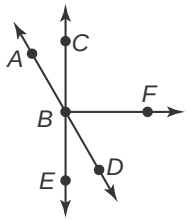
11. What type of angle is $\angle AEF$?

11. _____

12. Find $m\angle GED$ if $\overrightarrow{ED}$ bisects $\angle GEF$.

12. _____

For Exercises 13–16, use the figure at the right.



13. Find $m\angle FBD$ if $\angle FBD$ and $\angle DBE$ are complementary and $m\angle FBD$ is twice $m\angle DBE$.

13. _____

14. Which pair of angles are supplementary?

14. _____

15. If $m\angle CBF = 5x + 15$, find the value of x so that $\overline{CB} \perp \overline{BF}$.

15. _____

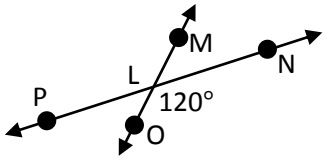
16. Find x if $m\angle ABC = 4x + 9$ and $m\angle EBD = 7x - 9$.

16. _____

17. Find $m\angle U$ if $\angle U$ is complementary to $\angle V$, $\angle V$ is supplementary to $\angle W$, $m\angle V = 15x - 2$, and $m\angle W = 25x + 22$.

17. _____

18. Refer to the figure. Name two acute vertical angles.



18. _____

19. Angles $\angle SRQ$ and $\angle QRT$ form a linear pair at the vertex point R. Which three points, Q, R, S, *or* T, are collinear?

19. _____

20. What is the value of x and AB if B is between A and C, AB=4x+5, AC=59, and BC=10x - 2.

20. _____