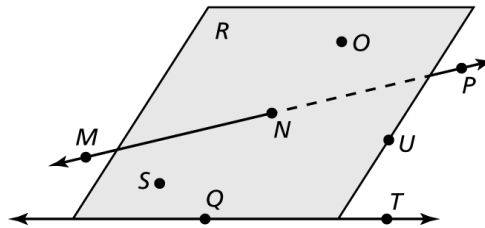


Chapter 1 **Test B**

Use the figure.

1. Give another name for plane R .
2. Name a line that intersects the plane.
3. Name two rays.
4. Name a point on plane R .
5. The cities shown on the map lie approximately in a straight line. Find the distance from Pittsburgh, Pennsylvania, to Columbus, Ohio.



Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____



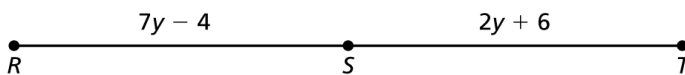
The endpoints of \overline{AB} are given. Find the coordinates of the midpoint C .

6. $A(-1, 9)$ and $B(-2, 5)$
7. $A(12, -5)$ and $B(-3, 2)$

The midpoint M and one endpoint of \overline{CE} are given. Find the coordinates of the other endpoint.

8. $M(\frac{5}{2}, 1)$ and $E(-2, -3)$
9. $M(-1, 3)$ and $C(-4, 1)$

10. Identify the segment bisector of \overline{RT} . Then find RT



Chapter 1 Test B (continued)

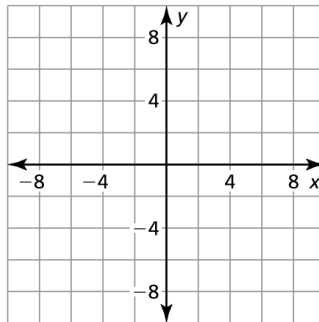
11. a. Plot the points in the coordinate plane.

$A(1, 2), B(1, 4), C(6, 2),$

$D(-3, 4), E(-3, 6), F(-8, 4)$

b. Find the area of each triangle.

c. Do the triangles have the same area? Explain.



Answers

11. a. See left.

b. _____

c. _____

12. _____

13. _____

14. _____

15. _____

16. _____

17. _____

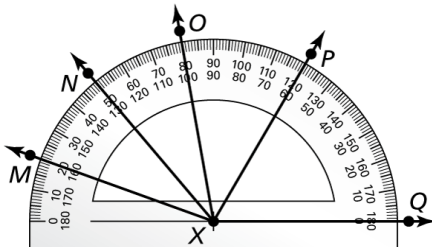
18. _____

Find the angle measure. Then classify the angle.

12. $m\angle MXN$

13. $m\angle NXP$

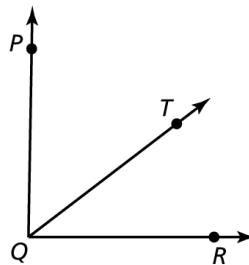
14. $m\angle OXQ$



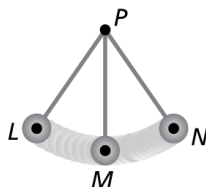
Use the diagram and the given angle measures to find the indicated angle measure.

15. $m\angle PQT = 51.5^\circ$ and $m\angle TQR = 48^\circ$.
Find $m\angle PQR$.

16. $m\angle PQR = 113^\circ$ and $m\angle TQR = 30.25^\circ$.
Find $m\angle PQT$.



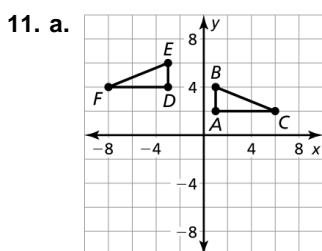
17. The tip of a pendulum is in a state of rest, hanging from point P . During an experiment, a physics student sets the pendulum in motion. The tip of the pendulum swings back and forth. The tip swings from point L to point N . During each swing, the tip passes through point M . Name all the angles in the diagram.



18. Your friend is making a pattern for quilt pieces. Her pattern is a right triangle with two acute angles that are complementary. The measure of one of the acute angles is to be 12° more than half the measure of the other acute angle. Find the measure of each angle of the triangle.

Test B – Answer Key:

1. Sample answer: plane QSU
2. Sample answer: \overline{MP}
3. Sample answer: $\overrightarrow{QT}, \overrightarrow{NP}$
4. Sample answer: point O
5. 188 mi
6. $(-\frac{3}{2}, 7)$
7. $(\frac{9}{2}, -\frac{3}{2})$
8. $C(7, 5)$
9. $E(2, 5)$
10. point S ; $RT = 20$



- b. Each triangle has an area of 5 square units.
 - c. yes; They are congruent triangles.
12. 30° ; acute
 13. 70° ; acute
 14. 100° ; obtuse
 15. 99.5°
 16. 82.75°
 17. Sample answer: $\angle LPN, \angle LPM, \angle MPN$; alternate names include $\angle P, \angle NPL, \angle NPM, \angle MPL$
 18. One angle is 52° and the other is 38° .