hw-09-coordinate-distance-midpoint

Due: **12/12/2015 at 06:00am EST.**

Students will be able to:

- Determine Distance Between Two Points
- Use Midpoint Formula
- Solve Applications Using Midpoint and Distance Formula

Functions and symbols that WeBWorK understands.

Links to some useful WeBWorK pages for students

1. (1 pt) Which of the points $A(11,9)$ or $B(7,11)$ is closer to the point $R(7,7)$?

Input the corresponding letter A or B here: ___;
Be careful, you only have two chances to enter your answer!!!

2. (1 pt) Which of the points $A(3,4)$ or $B(-2,5)$ is closer to the origin?

Input the corresponding letter A or B here: ___;
Be careful, you only have two chances to enter your answer!!!

3. (1 pt) Find the midpoint of the segment that joins the points $(2,-4)$ and $(-3,5)$.

Input your answer here: (_____,_____)

4. (1 pt) Find the midpoint of the segment that joins the points $(-6,4)$ and $(5,-5)$.

Input your answer here: (_____,_____)

5. (1 pt) Find the midpoint of the segment that joins the points $(-4,-2)$ and $(-2,-5)$.

Input your answer here: (_____,_____)

6. (1 pt) The midpoint of AB is at $(2,4)$. If $A=(-6,-3)$, find B.

B is:(___,___)

7. (1 pt) Find the distance between the two points, $(-7,-5)$ and $(4,3)$.

$d=$_____

8. (1 pt) Find the distance between the two points, $(7,-5)$ and $(-3,-8)$.

$d=$_____

9. (1 pt) Find the distance between the two points, $(-1,8)$ and $(8,1)$.

$d=$_____

10. (1 pt) Consider the two points $(-2,4)$ and $(7,10)$. The distance between them is:_____
The x co-ordinate of the midpoint of the line segment that joins them is:_____
The y co-ordinate of the midpoint of the line segment that joins them is: _____

11. (1 pt) Find all y such that the distance between the points (-10, -2) and (5, y) is 26.

$y=$ _____

Note: Enter your answer as a comma separated list of numbers. If there are no such y, enter *none.*

12. (1 pt) Find the perimeter of the triangle with the vertices at
(2, 2), (-6, 3), and (-5, -3).

_____

13. (1 pt) Consider the two points $(1,-1)$ and $(8,7)$.
The distance between them is: _____

The midpoint of the line segment that joins these points is: (_____ , _____)

14. (1 pt) Find all x such that the distance between the points (-10, 4) and (x, -3) is 28. Note: If there is more that one x, give a comma separated list (i.e.: 1,2).

x= _____

15. (1 pt) Find the point $(0,b)$ on the y-axis that is equidistant from the points $(1,1)$ and $(5,-4)$.

$b=$_____

16. (1 pt) Consider the two points $(5,-1)$ and $(7,6)$. The distance between them is:_____
The midpoint of the line segment that joins them is: (_____, _____)

17. (1 pt) Consider triangle $\triangle ABC$ in the plane where
$A = (8, -2)$
$B = (17, 5)$
$C = (7, -1)$

Find the lengths of the sides of the triangle:

$AB =$ _____

$BC =$ _____

$AC =$ _____

Is $\triangle ABC$ a right triangle? (*yes* or *no*) _____

18. (1 pt) Consider the two points $(5, -1)$ and $(6, 8)$. The distance between them is:_____

The x co-ordinate of the midpoint of the line segment that joins them is:_____

The y co-ordinate of the midpoint of the line segment that joins them is: _____

19. (1 pt) Consider the two points $(5, -2)$ and $(-10, -8)$.

The distance between them is:_____

The x co-ordinate of the midpoint of the line segment that joins them is:_____

The y co-ordinate of the midpoint of the line segment that joins them is: _____

20. (1 pt) Consider the two points $(4, -5)$ and $(9, 9)$.

The distance between them is:_____

The midpoint of the line segment that joins them is:_____

21. (1 pt) Find the perimeter of the triangle with the vertices at
$(0, 1)$, $(-3, 6)$, and $(-5, -4)$.

_____