

NAME: Key

Period: _____ SCORE: _____ / _____ = _____ %

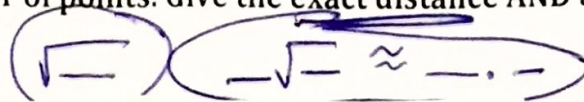
HW 5-2

Sec 1 H

Distance and Midpoint

Unit 5

Find the Distance between each pair of points. Give the exact distance AND an approximation rounded to the nearest hundredth.



1. J(-3,4), K(2,-4)

$$\sqrt{89} \approx 9.4$$

3. S(-3,2), T(4,5)

$$\sqrt{58} \approx 7.6$$

4

5. X(-3,-6), Y(5,6)

3,-5

$$4\sqrt{13} \approx 14.4$$

$$+1$$

7. X(1,2), Y(5,9)

$$\sqrt{65} \approx 8.1$$

8.

$$[\quad]$$

(-5,1)

$$\sqrt{53} \approx 7.3$$

1

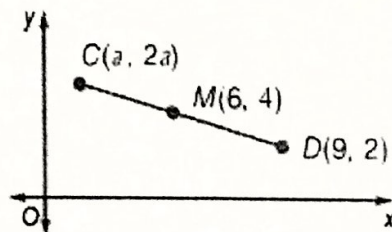
11. A(2,4), B(5,7)

$$3\sqrt{2} \approx 4.2$$

13. Find the coordinates of G if F(1, 3.5) is the midpoint of \overline{GJ} and J has coordinates (6, -2).

$$G(-4, 9)$$

14. ALGEBRA Point M is the midpoint of \overline{CD} . What is the value of a in the figure?



Find the coordinates of the midpoint of a segment

15. $D(-15,4), E(2,-10)$

$$(-6.5, -6)$$

Find the coordinates of the missing endpoint if B is the midpoint of AC

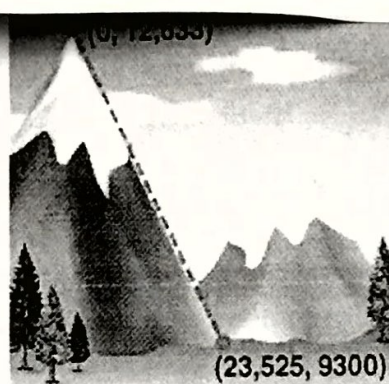
17. $C(-5,4), B(-2,5)$

18. $A(1,7), B(-3,1)$

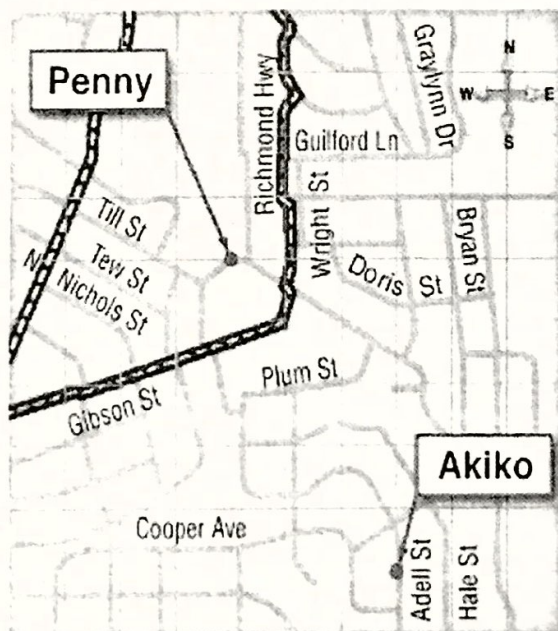
$$A(1, 6)$$

19. **CCSS REASONING** Vivian is planning to hike to the top of Humphreys Peak on her family vacation. The coordinates of the peak of the mountain and of the base of the trail are shown. If the trail can be approximated by a straight line, estimate the length of the trail. (Hint: 1 mi = 5280 ft)

$$23759.9 \text{ ft} \approx 4.5 \text{ miles}$$



20. **CCSS MODELING** Penny and Akiko live in the locations shown on the map below.



- If each square on the grid represents one block and the bottom left corner of the grid is the location of the origin, what is the straight-line distance from Penny's house to Akiko's? $\sqrt{34} \approx 5.8 \text{ blocks}$
- If Penny moves three blocks to the north and Akiko moves 5 blocks to the west, how far apart will they be?