

Distance and Midpoint Formulas 7-1

Distance Formula

Ex: Find the distance between the given coordinates. Put your answer in simplest radical form.

1. $(-5, 7)$ and $(9, -11)$

2. $(5, 3)$ and $(-1, 6)$

3. $\frac{1}{4}, \frac{1}{2}$ and $\frac{1}{2}, \frac{1}{4}$

Find a so that distance between the points is 10 units.

4. $(7, 2)$ and $(-1, a)$

5. $(-7, 3)$ and $(a, 11)$

Midpoint Formula

Ex: Find the midpoint between the given points.

6. $(-1, 6)$ and $(11, 0)$

7. $(5, 9)$ and $(12, 18)$

8. $\frac{1}{4}, \frac{2}{3}$ and $\frac{3}{4}, \frac{1}{6}$

Find the coordinates of B if M is the midpoint of segment AB.

8. A $(9, 3)$ and M $(4, 2)$

9. $(2, 5)$ and $(-1, 7)$