



Math on the Fly!



NAME: _____ DATE: _____

The Midpoint Formula

Find the coordinates of the midpoint of each set of points.

- | | | | | | |
|----|---------------------|----|----------------------|----|---------------------|
| 1. | (10,4) and (6,2) | 2. | (5,3) and (8,11) | 3. | (0,-1) and (-2,4) |
| 4. | (13,0) and (9,20) | 5. | (-7,-10) and (15,-8) | 6. | (-9,-7) and (-17,7) |
| 7. | (-4,-3) and (-6,-5) | 8. | (6,1) and (-6,0) | 9. | (7,-6) and (-5,-8) |

In each problem below, an endpoint and the midpoint of a line segment is given.
Find the coordinates of the missing endpoint.

10.

Segment AB:

Point A = (7,5)
Midpoint = (9,4)
Point B = (?,?)

11.

Segment CD:

Point C = (3,4)
Midpoint = (-1,6)
Point D = (?,?)

12.

Segment EF:

Point E = (-6,-7)
Midpoint = (-4,-3)
Point F = (?,?)

13.

Segment GH:

Point G = (-5,10)
Midpoint = (-6,8)
Point H = (?,?)

14.

Segment JK:

Point J = (4,-9)
Midpoint = (2,-6)
Point K = (?,?)

15.

Segment NP:

Point N = (-8,12)
Midpoint = (-3,8)
Point P = (?,?)

SOLUTIONS

1. $M = (8,3)$

2. $M = (\frac{13}{2}, 7)$ or $(6.5, 7)$

3. $M = (-1, \frac{3}{2})$ or $(-1, 1.5)$

4. $M = (11, 10)$

5. $M = (4, -9)$

6. $M = (-13, 0)$

7. $M = (-5, -4)$

8. $M = (0, \frac{1}{2})$ or $(0, 0.5)$

9. $M = (1, -7)$

10. $B = (11, 3)$

11. $D = (-5, 8)$

12. $F = (-2, 1)$

13. $H = (-7, 6)$

14. $K = (0, -3)$

15. $P = (2, 4)$