



# 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.  $P = (2,4)$