

### Conditions

15. Find the coordinates of point Q, the other endpoint of the line segment , given P(8,2) and, the midpoint, M(2,5). HINT: Use the midpoint formula, plug in what you know and solve.

- A. (-2, 12)
- B. (0, 3.5)
- C. (4, 4)
- D. (-4, 8)

### Solution

Let consider Q(x,y). Then by using the midpoint formula:

$$\frac{x + 8}{2} = 2$$

$$\frac{y + 2}{2} = 5$$

$$x = -4$$

$$y = 8$$

**Answer: D(-4,8)**