For line segment AB with midpoint M, determine the coordinates of point B. $A(-2,2)$;

$M = \left(1, 1\frac{1}{2}\right)$

Solution:

Assume $B = (x, y)$

Then

$$\frac{x+(-2)}{2} = 1 \qquad => \qquad x = 4$$

$$\frac{y+2}{2} = 1\frac{1}{2} \qquad => \qquad y = 1$$

$$B(4,1)$$

Answer: $B(4,1)$