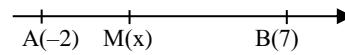


**α) i)**  $|x + 2| = |x - (-2)| = d(x, -2) = MA$

**ii)**  $|x - 7| = d(x, 7) = MB$

**β)**  $|x + 2| + |x - 7| = MA + MB = AB$



**γ)** Ισχύει ότι:

$$\begin{aligned} |x + 2| + |x - 7| &= AB = \\ &= d(7, -2) = |7 - (-2)| = |9| = 9 \end{aligned}$$

**δ)** Είναι:

$$x > -2 \Leftrightarrow x + 2 > 0, \text{ άρα } |x + 2| = x + 2.$$

Επίσης:

$$\begin{aligned} x < 7 &\Leftrightarrow x - 7 < 0, \text{ άρα} \\ |x - 7| &= -(x - 7) = 7 - x \end{aligned}$$

Τότε:

$$A = |x + 2| + |x - 7| = x + 2 + 7 - x = 9$$