

Answer on Question #70130, Math / Calculus

Find limit:  $\lim_{x \rightarrow -2^+} \left( (x + 3) \left[ \frac{|x + 2|}{x + 2} \right] \right)$

Solution

If  $x \geq -2$ ,  $|x + 2| = x + 2$ .

Then

$$\begin{aligned} \lim_{x \rightarrow -2^+} \left( (x + 3) \left[ \frac{|x + 2|}{x + 2} \right] \right) &= \lim_{x \rightarrow -2^+} \left( (x + 3) \left[ \frac{x + 2}{x + 2} \right] \right) = \\ &= \lim_{x \rightarrow -2^+} (x + 3) = -2 + 3 = 1 \end{aligned}$$

$$\text{Answer: } \lim_{x \rightarrow -2^+} \left( (x + 3) \left[ \frac{|x + 2|}{x + 2} \right] \right) = 1$$

Answer provided by <https://www.AssignmentExpert.com>