2.2.25

$$\frac{x^2 + 3x - 10}{x + 5} = \frac{(x+5)(x-2)}{x+5} = x - 2 \xrightarrow[x \to -5]{} (-5) - 2 = -7.$$

2.4.17

a As $x \to -2^+$,

$$x > -2,$$
$$x + 2 > 0,$$
$$|x + 2| = x + 2.$$

Then

$$(x+3)\frac{|x+2|}{x+2} = (x+3)\frac{x+2}{x+2} = x + 3 \xrightarrow[x \to -2^+]{} (-2) + 3 = 1.$$

b As $x \to -2^-$,

$$x < -2,$$
$$x + 2 < 0,$$
$$|x + 2| = -(x + 2).$$

Then

$$(x+3)\frac{|x+2|}{x+2} = (x+3)\frac{-(x+2)}{x+2} = -(x+3) \xrightarrow[x \to -2^-]{} -\big((-2) + 3\big) = -1.$$