$F(x) = \sqrt{\dfrac{x-5}{x+6}}$

Let $f(x) = \sqrt{x}$, $g(x) = \dfrac{x-5}{x+6}$ $\therefore F(x) = f \circ g (x)$

g is a rational function f is of the form $\sqrt[n]{x}$ where $n=2$
$\therefore$ it is continuous at every point in its domain $\therefore$ it is continuous for all $x > 0$
    by theorem 25   by theorem 26 (2)

$\therefore$ F is continuous for all x such that $g(x) > 0$

Investigate intervals with 5 and -6 as critical values :

	$x - 5$	$x + 6$	$g(x) = \dfrac{x-5}{x+6}$
$x < -6$	$-$	$-$	$+$
$x = -6$	$-$	0	UNDEFINED
$-6 < x < 5$	$-$	$+$	$-$
$x = 5$	0	$+$	$+$
$x > 5$	$+$	$+$	$+$

Investigate $x = -6$:
$f(-6)$ does not exist
$\therefore$ F is discontinuous at $x = -6$

Investigate $x = 5$:
$f(5) = 0$
$\lim\limits_{x \to 5^+} f(x) = 0 = f(5)$
$\therefore$ F is right-continuous at $x = 5$

$\boxed{\therefore F \text{ is continuous at } (-\infty, -6) \cup [5, +\infty)}$

$\boxed{\begin{array}{l}\therefore F \text{ is continuous at the open interval } (-\infty, -6) \\ \text{and the half-open interval } [5, +\infty)\end{array}}$