

$f(x) \rightarrow 1-x \geq 0 \rightarrow x \leq 1 \rightarrow Df = (-\infty, 1]$ $g(x) \rightarrow (1-x)^3 \geq 0 \rightarrow 1-x \geq 0 \rightarrow x \leq 1 \rightarrow Dg = (-\infty, 1]$ <u>تابع‌ها برابرند</u>	۶
$f(x) \rightarrow x \geq 0 \rightarrow Df = [0, +\infty)$ $g(x) \rightarrow x^3 \geq 0 \rightarrow x \geq 0$ <u>تابع‌ها برابرند</u> $Dg = [0, +\infty)$	۷
$f(x) \rightarrow x \geq 0 \rightarrow [\sqrt{x} - \{\sqrt{x}\}] \rightarrow Df = \{0\}$ $g(x) \rightarrow x - x \geq 0$ $x \geq x \rightarrow Dg = \{0\} \cup \mathbb{R}^+$ <u>تابع‌ها برابر نیستند</u>	۸
الف) $\frac{f(1)+g(1)}{f(1)-g(1)} = \frac{2+1}{2-1} = 3$ ب) $\frac{f(2)+g(2)}{f(2)-g(2)} = \frac{3+3}{3-3} = \frac{6}{0}$ <u>تعریف نشده</u> ج) $f(6)g(-1) = 0 \times 1 = 0$	۹
الف) $f(x) = \left\{ \left(\frac{1}{2}, 1\right), (0, 3), \left(\frac{1}{3}, 0\right), \left(-\frac{1}{3}, 2\right), \left(\frac{2}{3}, -1\right) \right\}$ $3x-1, 2 \rightarrow 3x, 3 \rightarrow x = \frac{1}{3}$, $3x-1, 2-1 \rightarrow 3x, 1 \rightarrow x = \frac{2}{3}$, $3x-1, 0 \rightarrow 3x, 1 \rightarrow x = \frac{1}{3}$ $3x-1, 2 \rightarrow 3x, 2-1 \rightarrow x = \frac{1}{3}$, $3x-1, 2 \rightarrow 3x, 3 \rightarrow x = \frac{2}{3}$ ب) $h(x) = \left\{ (0, 0), (2, 1), (4, 1), (-3, -1), (5, -1) \right\}$ $ x \geq 0 \rightarrow x \geq 0$ $ x \geq 2 \rightarrow x \geq 2$ $ x \geq 3 \rightarrow x \geq 3$	۱۰