

الف) $\lim_{x \rightarrow y} (x - y)$

$x \rightarrow y^+$
 $x \rightarrow y^-$
 $x \rightarrow y = \boxed{0}$

ب) $\lim_{x \rightarrow y} (x - y)$

$x \rightarrow y^+$
 $x \rightarrow y^-$
 $x \rightarrow y = \boxed{0}$

①

الف) $\lim_{x \rightarrow y} [x] - y$

$x \rightarrow y^+$
 $x \rightarrow y^-$
 $x \rightarrow y = \boxed{y}$

ب) $\lim_{x \rightarrow y} [x] - y$

$x \rightarrow y^+$
 $x \rightarrow y^-$
 $x \rightarrow y = \boxed{y}$

الف) $\lim_{x \rightarrow y} [x - y]$

$x \rightarrow y^+$
 $x \rightarrow y^-$
 $x \rightarrow y = \boxed{0}$

ب) $\lim_{x \rightarrow y} [x - y]$

$x \rightarrow y^+$
 $x \rightarrow y^-$
 $x \rightarrow y = \boxed{0}$

②

الف) $\lim_{x \rightarrow y} [x - y]$

$x \rightarrow y^+$
 $x \rightarrow y^-$
 $x \rightarrow y = \boxed{0}$

ب) $\lim_{x \rightarrow y} [x - y]$

$x \rightarrow y^+$
 $x \rightarrow y^-$
 $x \rightarrow y = \boxed{0}$

③

الف) $\lim_{x \rightarrow y} \frac{x - y}{x - y}$

$x \rightarrow y^+$
 $x \rightarrow y^-$
 $x \rightarrow y = \boxed{1}$

ب) $\lim_{x \rightarrow y} \frac{x - y}{(x - y)^2}$

$x \rightarrow y^+$
 $x \rightarrow y^-$
 $x \rightarrow y = \boxed{+\infty}$

④

الف) $\lim_{x \rightarrow y} \sqrt{x - y}$

$x \rightarrow y^+$
 $x \rightarrow y^-$
 $x \rightarrow y = \boxed{+\infty}$

⑤

$x \rightarrow y^+$
 $x \rightarrow y^-$
 $x \rightarrow y = \boxed{y}$

ب) $\lim_{x \rightarrow y} \frac{x - y}{\sqrt{x^2 - x + y}}$

$x \rightarrow y^+$
 $x \rightarrow y^-$
 $x \rightarrow y = \boxed{+\infty}$

⑥

نوعی است
 یا نه

11) $\lim_{x \rightarrow y} \frac{x^2 - y^2}{x^2 - 11x + 10}$

$x^2 - y^2 = (x-y)(x+y)$
 $x^2 - 11x + 10 = (x-1)(x-10)$

$\lim_{x \rightarrow y} \frac{(x-y)(x+y)}{(x-1)(x-10)} = \frac{y+y}{(y-1)(y-10)}$

$\lim_{x \rightarrow 1} \frac{x^2 - 1}{(x-1)(x-10)} = \frac{1-1}{(1-1)(1-10)} = -0$

12) $\lim_{x \rightarrow 0} \frac{x^2 - 9}{x - 3}$

$x^2 - 9 = (x-3)(x+3)$

$\lim_{x \rightarrow 0} \frac{(x-3)(x+3)}{x-3} = \lim_{x \rightarrow 0} (x+3) = 0 + 3 = 3$

$\lim_{x \rightarrow 3} \frac{x^2 - 9}{x - 3} = \frac{9 - 9}{3 - 3} = \frac{0}{0} = -4$

13) $\lim_{x \rightarrow 1} [x^2 - 4x]$

$x^2 - 4x$

$-4 = 1 - 4 = -3$

14) $\lim_{x \rightarrow 1} [x^2 - 1]$

$x^2 - 1$

$x^2 - 1 = (x-1)(x+1)$

$\lim_{x \rightarrow 1} (x+1) = 1 + 1 = 2$

15) $\lim_{x \rightarrow 1} \frac{x^2 - 1}{x - 1}$

$x^2 - 1 = (x-1)(x+1)$

$\lim_{x \rightarrow 1} \frac{(x-1)(x+1)}{x-1} = \lim_{x \rightarrow 1} (x+1) = 1 + 1 = 2$

15

16) $\lim_{x \rightarrow 0} \frac{x^2 - 1}{x - 1}$

$x^2 - 1$

$\lim_{x \rightarrow 0} \frac{x^2 - 1}{x - 1} = \frac{0 - 1}{0 - 1} = \frac{-1}{-1} = 1$

$\lim_{x \rightarrow 0} \frac{x - 0}{(x-1)(x+1)} = \frac{0}{(0-1)(0+1)} = \frac{0}{-1} = 0$

$\frac{1}{0} = -\infty$

توسیف لاریبی
 بلانے سیر

17) (الف)

$\lim_{x \rightarrow 9} [x^2] + [-x]$

$x^2 \rightarrow 9 + 9 = 18$

$-x \rightarrow -9 = -9$

$18 - 9 = 9$

18) $\lim_{x \rightarrow 9} [-\epsilon N] + [\epsilon N]$

$-\epsilon N - \epsilon$

$-9 + 9 = 0$

$-9 + 9 = 0$

11