

..... نام و نام خانوادگی نام و نام خانوادگی

19/1

1) $\lim_{x \rightarrow \infty} \frac{3x^2 - 2x + 1}{x^2 + 5x - 6} = \frac{3}{1} = 3$
 2) $\lim_{x \rightarrow \infty} \frac{2x^3 + 4x^2 - 7x + 1}{5x^3 - 3x^2 + 2x - 8} = \frac{2}{5}$

3) $\lim_{x \rightarrow \infty} \frac{4x^4 + 3x^3 - 2x^2 + 1}{7x^4 - 5x^3 + 6x^2 - 4x + 9} = \frac{4}{7}$
 4) $\lim_{x \rightarrow \infty} \frac{5x^5 + 2x^4 - 1}{3x^5 - 4x^4 + 7x^3 - 2x^2 + 1} = \frac{5}{3}$

5) $\lim_{x \rightarrow \infty} \frac{6x^6 + 4x^5 - 3x^4 + 2x^3 - 1}{8x^6 - 5x^5 + 7x^4 - 6x^3 + 5x^2 - 4x + 3} = \frac{6}{8} = \frac{3}{4}$
 6) $\lim_{x \rightarrow \infty} \frac{9x^7 + 5x^6 - 4x^5 + 3x^4 - 2x^3 + 1}{10x^7 - 8x^6 + 6x^5 - 5x^4 + 4x^3 - 3x^2 + 2x - 1} = \frac{9}{10}$

7) $\lim_{x \rightarrow \infty} \frac{10x^8 + 7x^7 - 6x^6 + 5x^5 - 4x^4 + 3x^3 - 2x^2 + 1}{11x^8 - 9x^7 + 8x^6 - 7x^5 + 6x^4 - 5x^3 + 4x^2 - 3x + 2} = \frac{10}{11}$
 8) $\lim_{x \rightarrow \infty} \frac{11x^9 + 8x^8 - 7x^7 + 6x^6 - 5x^5 + 4x^4 - 3x^3 + 2x^2 - 1}{12x^9 - 10x^8 + 9x^7 - 8x^6 + 7x^5 - 6x^4 + 5x^3 - 4x^2 + 3x - 2} = \frac{11}{12}$

9) $\lim_{x \rightarrow \infty} \frac{12x^{10} + 9x^9 - 8x^8 + 7x^7 - 6x^6 + 5x^5 - 4x^4 + 3x^3 - 2x^2 + 1}{13x^{10} - 11x^9 + 10x^8 - 9x^7 + 8x^6 - 7x^5 + 6x^4 - 5x^3 + 4x^2 - 3x + 2} = \frac{12}{13}$
 10) $\lim_{x \rightarrow \infty} \frac{13x^{11} + 10x^{10} - 9x^9 + 8x^8 - 7x^7 + 6x^6 - 5x^5 + 4x^4 - 3x^3 + 2x^2 - 1}{14x^{11} - 12x^{10} + 11x^9 - 10x^8 + 9x^7 - 8x^6 + 7x^5 - 6x^4 + 5x^3 - 4x^2 + 3x - 2} = \frac{13}{14}$

1.	<p>(i) $\lim_{n \rightarrow \infty} \frac{n - [n]}{n} = \frac{0}{2} = 0$</p> <p>(ii) $\lim_{n \rightarrow \infty} \frac{n - [n]}{n} = \frac{0}{2} = 0$</p> <p>iii) $\lim_{n \rightarrow \infty} \frac{n - [n]}{n} = \frac{0}{2} = 0$</p>
b	<p>(i) $\lim_{n \rightarrow \infty} [n - n^2] = \infty$</p> <p>(ii) $\lim_{n \rightarrow \infty} [n^2 - n] = \infty$</p>
y	<p>(i) $\lim_{n \rightarrow \infty} [n^2 + n] = \infty$</p> <p>(ii) $\lim_{n \rightarrow \infty} [n^2 - n] = \infty$</p>
y	<p>(i) $\lim_{n \rightarrow \infty} \frac{[n^2 - n]}{n} = \frac{0}{0} = 0$</p> <p>(ii) $\lim_{n \rightarrow \infty} \frac{[n^2 + n]}{n} = \frac{0}{0} = 0$</p>
s	<p>(i) $\lim_{n \rightarrow \infty} \frac{[n^2 - n]}{n} = \frac{0}{0} = 0$</p> <p>(ii) $\lim_{n \rightarrow \infty} \frac{[n^2 + n]}{n} = \frac{0}{0} = 0$</p>