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| **1.a1** | Kết quả của giới hạn sau đây khác với các các giới hạn còn lại |  |
| 2.A | \[\mathop {\lim }\limits\_{} \frac{{{{\left( {\frac{3}{n} + 2} \right)}^2}.\left( {1 + \frac{2}{{{n^2}}}} \right)}}{{\frac{1}{{{n^5}}} - 4}}\] |  |
| 2.B | \[\lim \left( {\frac{{\sqrt {\frac{1}{{{n^2}}} + \frac{1}{{{n^3}}}} - \frac{1}{{{n^2}}}}}{{\frac{1}{{{n^3}}} + 2}}} \right)\] |  |
| 2.C | \[\mathop {\lim }\limits\_{x \to - \infty } \frac{1}{{{x^3} - {x^2}}}\] |  |
| 2.D | \[\mathop {\lim }\limits\_{x \to + \infty } \frac{{\frac{1}{x} + 1}}{{{x^4} + x}}\] |  |
| 3.Đáp án | A |  |
| 4.Đáp án chi tiết | \[\mathop {\lim }\limits\_{} \frac{{{{\left( {\frac{3}{n} + 2} \right)}^2}.\left( {1 + \frac{2}{{{n^2}}}} \right)}}{{\frac{1}{{{n^5}}} - 4}} = \frac{4}{{ - 4}} = - 1\];  \[\lim \left( {\frac{{\sqrt {\frac{1}{{{n^2}}} + \frac{1}{{{n^3}}}} - \frac{1}{{{n^2}}}}}{{\frac{1}{{{n^3}}} + 2}}} \right) = 0\];\[\mathop {\lim }\limits\_{x \to - \infty } \frac{1}{{{x^3} - {x^2}}} = 0\];\[\mathop {\lim }\limits\_{x \to + \infty } \frac{{\frac{1}{x} + 1}}{{{x^4} + x}} = 0\] |  |
| 5.Level |  |  |
| 6.Ghi chú | D05 |  |
| **1.a2** | Chọn khẳng định SAI trong các khẳng định sau |  |
| 2.A | \[\mathop {\lim }\limits\_{x \to + \infty } \left[ {{2^x}\left( {{x^2} + {x^4} + 1} \right)} \right] = + \infty \] |  |
| 2.B | \[\mathop {\lim }\limits\_{x \to + \infty } \frac{{\frac{3}{{{x^5}}} - \frac{1}{{{x^2}}} + {{\left( {\frac{1}{2}} \right)}^x}}}{3} = 0\] |  |
| 2.C | \[\mathop {\lim }\limits\_{x \to + \infty } \frac{{\left( {4 + \frac{1}{x} + \frac{1}{{{x^3}}}} \right)\left( {1 - \frac{1}{x}} \right)}}{{\left( {\frac{1}{x} - 1} \right)\left( {3 + \frac{1}{x}} \right)}} = \frac{4}{3}\] |  |
| 2.D | \[\mathop {\lim }\limits\_{x \to + \infty } \frac{{\frac{4}{x} + 1}}{{{x^3} + 1}} = 0\] |  |
| 3.Đáp án | C |  |
| 4.Đáp án chi tiết | \[\mathop {\lim }\limits\_{x \to + \infty } \frac{{\left( {4 + \frac{1}{x} + \frac{1}{{{x^3}}}} \right)\left( {1 - \frac{1}{x}} \right)}}{{\left( {\frac{1}{x} - 1} \right)\left( {3 + \frac{1}{x}} \right)}} = \frac{4}{{\left( { - 1} \right).3}} = \frac{{ - 4}}{3}\] |  |
| 5.Level |  |  |
| 6.Ghi chú | D05 |  |
| **1.a3** | Chọn khẳng định **đúng** trong các khẳng định sau |  |
| 2.A | \[\mathop {\lim }\limits\_{x \to {0^ + }} (5x) > \;\mathop {\lim }\limits\_{x \to {0^ + }} \frac{2}{{{x^3}}}\;\;\;\;\] |  |
| 2.B | \[\mathop {\lim }\limits\_{x \to {0^ - }} \frac{{1000}}{x} > \mathop {\lim }\limits\_{x \to {0^ - }} (2{x^5})\] |  |
| 2.C | \[\mathop {\lim }\limits\_{x \to {0^ - }} \left( {\frac{x}{{2000}}} \right) = \mathop {\lim }\limits\_{x \to {0^ - }} ( - 100x)\] |  |
| 2.D | \[\mathop {\lim }\limits\_{x \to - \infty } {x^3} < \mathop {\lim }\limits\_{x \to {0^ + }} \frac{3}{{{x^5}}}\] |  |
| 3.Đáp án | C |  |
| 4.Đáp án chi tiết | \[\mathop {\lim }\limits\_{x \to {0^ - }} (5x) = 0 < \mathop {\lim }\limits\_{x \to {0^ + }} \frac{2}{{{x^3}}} = + \infty \]  \[\mathop {\lim }\limits\_{x \to {0^ - }} \frac{{1000}}{x} = - \infty < \mathop {\lim }\limits\_{x \to {0^ - }} (2{x^5}) = 0\]  \[\mathop {\lim }\limits\_{x \to {0^ - }} \left( {\frac{x}{{2000}}} \right) = \mathop {\lim }\limits\_{x \to {0^ - }} ( - 100x) = 0\]  \[\mathop {\lim }\limits\_{x \to - \infty } {x^3} = + \infty > \mathop {\lim }\limits\_{x \to {0^ + }} \frac{3}{{{x^5}}} = - \infty \] |  |
| 5.Level |  |  |
| 6.Ghi chú | D05 |  |
| **1.a4** | **Chọn khẳng định ĐÚNG trong các khẳng định sau :** |  |
| 2.A | \[\lim \left( {{u\_n}} \right) = - \infty \Leftrightarrow \lim \left( { - {u\_n}} \right) = - \infty \] |  |
| 2.B | \[\lim {u\_n} = - \infty \]và \[\lim {v\_n} = a > 0\]thì \[\lim \left( {{u\_n}.{v\_n}} \right) = + \infty \] |  |
| 2.C | Nếu \[\lim {u\_n} = {\text{a }}\]thì \[\lim \sqrt {{u\_n}} = \sqrt a {\text{ }}\] |  |
| 2.D | Nếu\[\lim {u\_n} = {\text{a }}\]và \[\lim {v\_n} = \pm \infty \] thì \[\lim \frac{{{u\_n}}}{{{v\_n}}} = 0\] |  |
| 3.Đáp án | D |  |
| 4.Đáp án chi tiết | \[\lim \left( {{u\_n}} \right) = - \infty \Leftrightarrow \lim \left( { - {u\_n}} \right) = + \infty \]  \[\lim {u\_n} = - \infty \]và \[\lim {v\_n} = a > 0\]thì \[\lim \left( {{u\_n}.{v\_n}} \right) = - \infty \]  Nếu \[\lim {u\_n} = {\text{a }}\]thì \[\lim \sqrt {{u\_n}} = \sqrt a {\text{ }}\]Sai vì thiếu điều kiện a > 0 |  |
| 5.Level |  |  |
| 6.Ghi chú | D05 |  |
| **1.a5** | **Trong các khẳng định sau, khẳng định nào SAI :** |  |
| 2.A | Nếu\[\lim {u\_n} = {\text{a }}\]và \[\lim {v\_n} = b{\text{ }}\]thì \[\lim \left( {{u\_n}.{v\_n}} \right) = a.b\] |  |
| 2.B | \[\lim \left( {{u\_n}} \right) = - \infty \Leftrightarrow \lim \left( { - {u\_n}} \right) = + \infty \] |  |
| 2.C | Nếu \[\lim {u\_n} = {\text{a }}\]> 0, \[\lim {v\_n} = 0\] thì \[\lim \left( {\frac{{{u\_n}}}{{{v\_n}}}} \right) = + \infty \] |  |
| 2.D | Nếu\[\lim {u\_n} = {\text{a }}\]và \[\lim {v\_n} = \pm \infty \] thì \[\lim \frac{{{u\_n}}}{{{v\_n}}} = 0\] |  |
| 3.Đáp án | C |  |
| 4.Đáp án chi tiết | Nếu \[\lim {u\_n} = {\text{a }}\]> 0, \[\lim {v\_n} = 0\] thì \[\lim \left( {\frac{{{u\_n}}}{{{v\_n}}}} \right) = + \infty \]  SAI vì thiếu điều kiện \[{v\_n} > 0\] |  |
| 5.Level |  |  |
| 6.Ghi chú | D05 |  |
| **1.a6** | Giới hạn nào sau có kết quả ĐÚNG: |  |
| 2.A | \[\lim \frac{{{{9.2}^{\frac{n}{2}}} - {2^n} + 1}}{{{{2.5}^n} + {2^n} + 2}} = \frac{1}{2}\] |  |
| 2.B | \[\lim \frac{{5{n^2} - 2n + 1}}{{2 - {n^2}}} = - 5\] |  |
| 2.C | \[\lim \left( { - {n^4} - {n^2} + 2} \right) = + \infty \] |  |
| 2.D | \[\lim \left( { - {4^n} - {5^n} + {6^n}} \right) = + \infty \] |  |
| 3.Đáp án | B |  |
| 4.Đáp án chi tiết | \[\lim \frac{{{{9.2}^{\frac{n}{2}}} - {2^n} + 1}}{{{{2.5}^n} + {2^n} + 2}} = \lim \frac{{\frac{{{{9.2}^{\frac{n}{2}}}}}{{{5^n}}} - {{\left( {\frac{2}{5}} \right)}^n} + \frac{1}{{{5^n}}}}}{{2 + {{\left( {\frac{2}{5}} \right)}^n} + \frac{2}{{{5^n}}}}} = \lim \frac{{9.{{\left( {\frac{{\sqrt 2 }}{5}} \right)}^n} - {{\left( {\frac{2}{5}} \right)}^n} + \frac{1}{{{5^n}}}}}{{2 + {{\left( {\frac{2}{5}} \right)}^n} + \frac{2}{{{5^n}}}}} = \frac{{0 - 0 + 0}}{{2 + 0 + 0}} = 0\] ;  \[\lim \frac{{5{n^2} - 2n + 1}}{{2 - {n^2}}} = \lim \frac{{5 - \frac{2}{n} + \frac{1}{{{n^2}}}}}{{\frac{2}{{{n^2}}} - 1}} = - 5\] ;  \[\lim \left( { - {n^4} - {n^2} + 2} \right) = \lim \left( { - {n^4}} \right)\left( {1 + 1 - \frac{2}{{{n^4}}}} \right) = - \infty \] ;  \[\lim \left( { - {4^n} - {5^n} + {6^n}} \right) = \lim \left( { - {{\left( {\frac{4}{6}} \right)}^n} - {{\left( {\frac{5}{6}} \right)}^n} + 1} \right) = 1\] ; |  |
| 5.Level |  |  |
| 6.Ghi chú | D05 |  |
| **1.a7** | Giới hạn nào sau đây có kết quả khác các kết quả còn lại: |  |
| 2.A | \[\lim \left( {{n^5} - {n^4} + 3} \right)\] |  |
| 2.B | \[\lim \left( {{n^3} - n + 1} \right)\] |  |
| 2.C | \[\lim \sqrt {2.{n^4} - n + 3} \] |  |
| 2.D | \[\lim \left( { - {n^4} + 2n + 5} \right)\] |  |
| 3.Đáp án | D |  |
| 4.Đáp án chi tiết | \[\lim \left( { - {n^4} + 2n + 5} \right) = \lim \left( { - {n^4}} \right)\left( {1 - \frac{2}{{{n^3}}} - \frac{5}{{{n^4}}}} \right) = - \infty \]\[\lim \left( {{n^3} - n + 1} \right) = \lim {n^3}\left( {1 - \frac{1}{{{n^2}}} + \frac{1}{{{n^3}}}} \right) = + \infty \] ;  \[\lim \sqrt {2.{n^4} - n + 3} = \lim {n^2}\sqrt {2 - \frac{1}{{{n^3}}} + \frac{3}{{{n^4}}}} = + \infty \];\[\lim \left( {{n^5} - {n^4} + 3} \right) = \lim {n^5}\left( {1 - \frac{1}{n} + \frac{3}{{{n^5}}}} \right) = + \infty \]; |  |
| 5.Level |  |  |
| 6.Ghi chú | D05 |  |
| **1.a8** | Chọn đáp án ĐÚNG: |  |
| 2.A | \[\lim \left( {\sqrt {{n^2} + 1} - \sqrt {{n^2} + 2} } \right) = - \infty \] |  |
| 2.B | \[\lim \left( {\sqrt {2{n^2} + 1} - \sqrt {{n^2} + 2} } \right) = 0\] |  |
| 2.C | \[\lim \left( {n - \sqrt {2{n^2} + 1} } \right) = + \infty \] |  |
| 2.D | \[\lim \left( {\sqrt {2{n^2} + 1} - n} \right) = + \infty \] |  |
| 3.Đáp án | D |  |
| 4.Đáp án chi tiết | \[\lim \left( {\sqrt {{n^2} + 1} - \sqrt {{n^2} + 2} } \right) = \lim \frac{{{n^2} + 1 - {n^2} - 2}}{{\sqrt {{n^2} + 1} + \sqrt {{n^2} + 2} }} = \lim \frac{{ - 1}}{{\sqrt {{n^2} + 1} + \sqrt {{n^2} + 2} }} = 0\];  \[\lim \left( {\sqrt {2{n^2} + 1} - \sqrt {{n^2} + 2} } \right) = \lim \frac{{2{n^2} + 1 - {n^2} - 2}}{{\sqrt {2{n^2} + 1} + \sqrt {{n^2} + 2} }} = \lim \frac{{{n^2} - 1}}{{\sqrt {2{n^2} + 1} + \sqrt {{n^2} + 2} }}\]\[ = \lim \frac{{n - \frac{1}{n}}}{{\sqrt {2 + \frac{1}{{{n^2}}}} + \sqrt {1 + \frac{2}{{{n^2}}}} }} = + \infty \];  \[\lim \left( {n - \sqrt {2{n^2} + 1} } \right) = \lim \frac{{{n^2} - 2{n^2} - 1}}{{n + \sqrt {2{n^2} + 1} }} = \lim \frac{{ - {n^2} - 1}}{{n + \sqrt {2{n^2} + 1} }} = \lim \frac{{ - n - \frac{1}{n}}}{{1 + \sqrt {2 + \frac{1}{{{n^2}}}} }} = - \infty \];  \[\lim \left( {\sqrt {2{n^2} + 1} - n} \right) = \lim \frac{{{n^2} + 1}}{{\sqrt {2{n^2} + 1} + n}} = \lim \frac{{n + \frac{1}{n}}}{{\sqrt {2 + \frac{1}{{{n^2}}}} + 1}} = + \infty \] |  |
| 5.Level |  |  |
| 6.Ghi chú | D05 |  |
| **1.a9** | Cho \[\lim \frac{{{{27}^{\frac{{n + 1}}{3}}} - b{{.2}^n}}}{{{2^{n + 2}} + a{{.3}^n} - 4}} = 3\]. Biết \[{a^3} + ab = 5\]. Tìm a,b |  |
| 2.A | a = 0, b = 5 |  |
| 2.B | a = 4, b = \[\frac{1}{3}\] |  |
| 2.C | a = 2, b =\[ - \frac{3}{2}\] |  |
| 2.D | a = 1, b = 4 |  |
| 3.Đáp án | D |  |
| 4.Đáp án chi tiết | \[\lim \frac{{{{27}^{\frac{{n + 1}}{3}}} - b{{.2}^n}}}{{{2^{n + 2}} + a{{.3}^n} - 4}} = \lim \frac{{{3^{n + 1}} - b{{.2}^n}}}{{{{4.2}^n} + a{{.3}^n} - 4}} = \lim \frac{{\frac{{{3^n}}}{{{3^n}}}.3 - b.{{\left( {\frac{2}{3}} \right)}^n}}}{{4.{{\left( {\frac{2}{3}} \right)}^n} + a - \frac{4}{{{3^n}}}}}\]\[ = \lim \frac{{3 - b.{{\left( {\frac{2}{3}} \right)}^n}}}{{4.{{\left( {\frac{2}{3}} \right)}^n} + a - \frac{4}{{{3^n}}}}} = \lim \frac{{3 - b.{{\left( {\frac{2}{3}} \right)}^n}}}{{4{{\left( {\frac{2}{3}} \right)}^n} + a - \frac{4}{{{3^n}}}}} = \frac{3}{a} = 3 \Rightarrow a = 1\]  \[ \Rightarrow b = 4\] |  |
| 5.Level |  |  |
| 6.Ghi chú | D05 |  |
| **1.a10** | Kết quả của \[\lim \frac{{\sqrt {a{n^2} + 1} - \sqrt {n + 1} }}{{bn + 1}}\]là : |  |
| 2.A | \[\frac{{\sqrt a }}{b}\] |  |
| 2.B | \[\frac{a}{b}\] |  |
| 2.C | \[\frac{{a - 1}}{b}\] |  |
| 2.D | \[\frac{1}{{ab}}\] |  |
| 3.Đáp án | A |  |
| 4.Đáp án chi tiết | \[\lim \frac{{\sqrt {a{n^2} + 1} - \sqrt {n + 1} }}{{bn + 1}} = \lim \frac{{\left( {a{n^2} + 1} \right) - \left( {n + 1} \right)}}{{\left( {bn + 1} \right)\left( {\sqrt {a{n^2} + 1} + \sqrt {n + 1} } \right)}} = \lim \frac{{a{n^2} - n}}{{\left( {bn + 1} \right)\left( {\sqrt {a{n^2} + 1} + \sqrt {n + 1} } \right)}}\]  \[ = \lim \frac{{{n^2}\left( {a - \frac{1}{n}} \right)}}{{{n^2}\left( {b + \frac{1}{n}} \right)\left( {\frac{{\sqrt {a{n^2} + 1} }}{n} + \frac{{\sqrt {n + 1} }}{n}} \right)}} = \lim \frac{{a - \frac{1}{n}}}{{\left( {b + \frac{1}{n}} \right)\left( {\sqrt {a + \frac{1}{{{n^2}}}} + \sqrt {\frac{1}{n} + \frac{1}{{{n^2}}}} } \right)}} = \frac{{\sqrt a }}{b}\] |  |
| 5.Level |  |  |
| 6.Ghi chú | D05 |  |
| **1.a11** | **Tình giới hạn**\[\mathop {\lim }\limits\_{x \to - \infty } \left( {x + 1} \right)\sqrt {\frac{{2x + 1}}{{{x^3} + x + 2}}} \] |  |
| 2.A | \[ - \sqrt 2 \] |  |
| 2.B | \[\sqrt 2 \] |  |
| 2.C | \[ - \infty \] |  |
| 2.D | 0 |  |
| 3.Đáp án | A |  |
| 4.Đáp án chi tiết | \[\mathop {\lim }\limits\_{x \to - \infty } \left( {x + 1} \right)\sqrt {\frac{{2x + 1}}{{{x^3} + x + 2}}} = \mathop {\lim }\limits\_{x \to - \infty } - \sqrt {\frac{{(2x + 1){{(x + 1)}^2}}}{{{x^3} + x + 2}}} = \mathop {\lim }\limits\_{x \to - \infty } - \sqrt {\frac{{{x^3}\left( {\frac{{2x + 1}}{x}} \right)\frac{{{{\left( {x + 1} \right)}^2}}}{{{x^2}}}}}{{{x^3}\left( {1 + \frac{1}{{{x^2}}} + \frac{2}{{{x^3}}}} \right)}}} \]\[ = \mathop {\lim }\limits\_{x \to - \infty } - \sqrt {\frac{{\left( {2 + \frac{1}{x}} \right){{\left( {1 + \frac{1}{x}} \right)}^2}}}{{\left( {1 + \frac{1}{{{x^2}}} + \frac{2}{{{x^3}}}} \right)}}} = - \sqrt 2 \] |  |
| 5.Level |  |  |
| 6.Ghi chú | D05 |  |
| **1.a12** | Phát biểu nào sau đây là ĐÚNG\[\mathop {\lim }\limits\_{x \to - \infty } \left( {\frac{{23{x^4} - {x^2} + x + 1}}{{3{x^4} + x + 7}}} \right) = \frac{{23}}{3}\](i) và \[\mathop {\lim }\limits\_{x \to - \infty } \sqrt {\frac{{9{x^8} + {x^3} - 3}}{{{x^8} + {x^5} + 2}}} = 9\](ii) |  |
| 2.A | (i) đúng, (ii) đúng |  |
| 2.B | (i) đúng, (ii) sai |  |
| 2.C | (i) sai, (ii) sai |  |
| 2.D | (i) sai, (ii) đúng |  |
| 3.Đáp án | B |  |
| 4.Đáp án chi tiết | \[\mathop {\lim }\limits\_{x \to - \infty } \left( {\frac{{23{x^4} - {x^2} + x + 1}}{{3{x^4} + x + 7}}} \right) = \mathop {\lim }\limits\_{x \to + \infty } \left( {\frac{{23 - \frac{1}{{{x^2}}} + \frac{1}{{{x^3}}} + \frac{1}{{{x^4}}}}}{{3 + \frac{1}{{{x^3}}} + \frac{7}{{{x^4}}}}}} \right) = \frac{{23}}{3}\];  \[\mathop {\lim }\limits\_{x \to - \infty } \sqrt {\frac{{9{x^8} + {x^3} - 3}}{{{x^8} + {x^5} + 2}}} = \mathop {\lim }\limits\_{x \to - \infty } \sqrt {\frac{{9 + \frac{1}{{{x^5}}} - \frac{3}{{{x^8}}}}}{{1 + \frac{1}{{{x^3}}} + \frac{2}{{{x^8}}}}}} = 3\] |  |
| 5.Level |  |  |
| 6.Ghi chú | D05 |  |
| **1.a13** | \[\mathop {\lim }\limits\_{x \to - \infty } \left( {\sqrt {4{x^2} - {a^2}x} + 2x} \right)\]=? |  |
| 2.A | 0 |  |
| 2.B | \[ + \infty \] |  |
| 2.C | \[a + 2\] |  |
| 2.D | \[\frac{{{a^2}}}{4}\] |  |
| 3.Đáp án | D |  |
| 4.Đáp án chi tiết | \[\mathop {\lim }\limits\_{x \to - \infty } \left( {\sqrt {4{x^2} - {a^2}x} + 2x} \right) = \mathop {\lim }\limits\_{x \to - \infty } \left( {\frac{{ - {a^2}x}}{{\sqrt {4{x^2} - {a^2}x} - 2x}}} \right) = \mathop {\lim }\limits\_{x \to - \infty } \left( {\frac{{ - {a^2}}}{{ - \sqrt {4 - \frac{{{a^2}}}{x}} - 2}}} \right) = \frac{{{a^2}}}{4}\] |  |
| 5.Level |  |  |
| 6.Ghi chú | D05 |  |
| **1.a14** | Cho\[\mathop {\lim }\limits\_{x \to - \infty } \left( {\frac{{\sqrt {a{x^2} - x} - \sqrt {b{x^2} + 1} }}{{2x + 3}}} \right) = \frac{1}{2}\].Tìm a,b biết b – a = 3 |  |
| 2.A | \[a = 5,b = 8\] |  |
| 2.B | \[a = 4,b = 7\] |  |
| 2.C | \[a = 2,b = 5\] |  |
| 2.D | \[a = 1,b = 4\] |  |
| 3.Đáp án | D |  |
| 4.Đáp án chi tiết | \[\begin{gathered}  \mathop {\lim }\limits\_{x \to - \infty } \left( {\frac{{\sqrt {a{x^2} - x} - \sqrt {b{x^2} + 1} }}{{2x + 3}}} \right) = \mathop {\lim }\limits\_{x \to - \infty } \left( {\frac{{x\left( { - \sqrt {\frac{{a{x^2} - x}}{{{x^2}}}} + \sqrt {\frac{{b{x^2} + 1}}{{{x^2}}}} } \right)}}{{x\left( {\frac{{2x + 3}}{x}} \right)}}} \right) = \mathop {\lim }\limits\_{x \to - \infty } \frac{{ - \sqrt {a - \frac{1}{x}} + \sqrt {b + \frac{1}{{{x^2}}}} }}{{2 + \frac{3}{x}}} \hfill \\  = \frac{{ - \sqrt a + \sqrt b }}{2} = \frac{1}{2} \Rightarrow - \sqrt a + \sqrt b = 1 \hfill \\  \end{gathered} \]  \[ \Rightarrow \left\{ \begin{gathered}  \sqrt b - \sqrt a = 1 \hfill \\  b - a = 3 \hfill \\  \end{gathered} \right. \Leftrightarrow \left\{ \begin{gathered}  \sqrt b - \sqrt a = 1 \hfill \\  \left( {\sqrt b - \sqrt a } \right)\left( {\sqrt b + \sqrt a } \right) = 3 \hfill \\  \end{gathered} \right. \Leftrightarrow \left\{ \begin{gathered}  \sqrt b - \sqrt a = 1 \hfill \\  \sqrt b + \sqrt a = 3 \hfill \\  \end{gathered} \right. \Leftrightarrow \left\{ \begin{gathered}  b = 4 \hfill \\  a = 1 \hfill \\  \end{gathered} \right.\] |  |
| 5.Level |  |  |
| 6.Ghi chú | D05 |  |
| **1.a15** | \[\mathop {\lim }\limits\_{x \to + \infty } \left( {\sqrt {a{x^2} - x + 1} - \sqrt {b{x^2} - 3x + 1} } \right) = + \infty \].Tìm a,b |  |
| 2.A | \[a > b\] |  |
| 2.B | \[a \geqslant b\] |  |
| 2.C | \[a < b\] |  |
| 2.D | \[a \leqslant b\] |  |
| 3.Đáp án | A |  |
| 4.Đáp án chi tiết | \[\begin{gathered}  \mathop {\lim }\limits\_{x \to + \infty } \left( {\sqrt {a{x^2} - x + 1} - \sqrt {b{x^2} - 3x + 1} } \right) = \mathop {\lim }\limits\_{x \to + \infty } \left( {\frac{{\left( {a - b} \right){x^2} + 2x}}{{\sqrt {a{x^2} - x + 1} + \sqrt {b{x^2} - 3x + 1} }}} \right) \hfill \\  = \mathop {\lim }\limits\_{x \to + \infty } \left( {\frac{{\left( {a - b} \right) + \frac{2}{x}}}{{\sqrt {\frac{a}{{{x^2}}} - \frac{1}{{{x^3}}} + \frac{1}{{{x^4}}}} + \sqrt {\frac{b}{{{x^2}}} - \frac{3}{{{x^3}}} + \frac{1}{{{x^4}}}} }}} \right) \hfill \\  \end{gathered} \]  Để giới hạn bằng \[ + \infty \Leftrightarrow a - b > 0 \Leftrightarrow a > b\] |  |
| 5.Level |  |  |
| 6.Ghi chú | D05 |  |
| **1.a16** | chọn đáp án đúng: |  |
| 2.A | \[\mathop {\lim }\limits\_{x \to - 3} \left| {\frac{{ - {x^2} - x + 6}}{{{x^2} + 3x}}} \right| = \frac{1}{3}\] |  |
| 2.B | \[\mathop {\lim }\limits\_{x \to - 3} \left| {\frac{{9 - {x^2}}}{{2{x^2} + 7x + 3}}} \right| = 0\] |  |
| 2.C | \[\mathop {\lim }\limits\_{x \to 2} \left( {\frac{{{x^3} + 3{x^2} - 9x - 2}}{{{x^3} - x - 6}}} \right) = \frac{{10}}{{11}}\] |  |
| 2.D | \[\mathop {\lim }\limits\_{x \to - 3} \left( {\frac{{2{x^2} + 5x - 3}}{{{x^3} + 3{x^2} - 2x - 6}}} \right) = - 1\] |  |
| 3.Đáp án | D |  |
| 4.Đáp án chi tiết | \[\mathop {\lim }\limits\_{x \to - 3} \left| {\frac{{ - {x^2} - x + 6}}{{{x^2} + 3x}}} \right| = \mathop {\lim }\limits\_{x \to - 3} \left| {\frac{{ - \left( {x + 3} \right)\left( {x - 2} \right)}}{{x\left( {x + 3} \right)}}} \right| = \mathop {\lim }\limits\_{x \to - 3} \left| {\frac{{ - \left( {x - 2} \right)}}{x}} \right| = \frac{5}{3}\]  \[\mathop {\lim }\limits\_{x \to - 3} \left| {\frac{{9 - {x^2}}}{{2{x^2} + 7x + 3}}} \right| = \mathop {\lim }\limits\_{x \to - 3} \left| {\frac{{\left( {x + 3} \right)\left( {3 - x} \right)}}{{\left( {x + 3} \right)\left( {2x + 1} \right)}}} \right| = \mathop {\lim }\limits\_{x \to - 3} \left| {\frac{{3 - x}}{{2x + 1}}} \right| = \frac{6}{5}\]  \[\mathop {\lim }\limits\_{x \to 2} \left( {\frac{{{x^3} + 3{x^2} - 9x - 2}}{{{x^3} - x - 6}}} \right) = \mathop {\lim }\limits\_{x \to 2} \frac{{\left( {x - 2} \right)\left( {{x^2} + 5x + 1} \right)}}{{\left( {x - 2} \right)\left( {{x^2} + 2x + 3} \right)}} = \mathop {\lim }\limits\_{x \to 2} \frac{{\left( {{x^2} + 5x + 1} \right)}}{{\left( {{x^2} + 2x + 3} \right)}} = \frac{{15}}{{11}}\]  \[\mathop {\lim }\limits\_{x \to - 3} \left( {\frac{{2{x^2} + 5x - 3}}{{{x^3} + 3{x^2} - 2x - 6}}} \right) = \mathop {\lim }\limits\_{x \to - 3} \frac{{\left( {2x - 1} \right)\left( {x + 3} \right)}}{{\left( {{x^2} - 2} \right)\left( {x + 3} \right)}} = \mathop {\lim }\limits\_{x \to - 3} \frac{{2x - 1}}{{{x^2} - 2}} = - 1\] |  |
| 5.Level |  |  |
| 6.Ghi chú | D05 |  |
| **1.a17** | Kết quả của giới hạn \[\mathop {\lim }\limits\_{x \to a} \left( {\frac{{2{x^2} + 5x - 3}}{{{x^3} + 3{x^2} - 2x - 6}}} \right)\] |  |
| 2.A | \[\frac{{2a - 1}}{{{a^2} - 2}}\] |  |
| 2.B | \[\frac{{2a + 1}}{{{a^2} - 2}}\] |  |
| 2.C | \[\frac{{a + 1}}{{{a^2} - 2}}\] |  |
| 2.D | \[\frac{{a - 1}}{{{a^2} - 2}}\] |  |
| 3.Đáp án | A |  |
| 4.Đáp án chi tiết | \[\mathop {\lim }\limits\_{x \to a} \left( {\frac{{2{x^2} + 5x - 3}}{{{x^3} + 3{x^2} - 2x - 6}}} \right) = \mathop {\lim }\limits\_{x \to a} \frac{{\left( {2x - 1} \right)\left( {x + 3} \right)}}{{\left( {{x^2} - 2} \right)\left( {x + 3} \right)}} = \mathop {\lim }\limits\_{x \to a} \frac{{2x - 1}}{{{x^2} - 2}} = \frac{{2a - 1}}{{{a^2} - 2}}\] |  |
| 5.Level |  |  |
| 6.Ghi chú | D05 |  |
| **1.a18** | Cho \[\mathop {\lim }\limits\_{x \to a} \left( {\frac{{2{x^3} + {x^2} - x - 2}}{{2{x^2} - 2x}}} \right) = 4\].Tính giá trị của a?, với \[a < 1\] |  |
| 2.A | \[a = 0\] |  |
| 2.B | \[a = \frac{1}{2}\] |  |
| 2.C | \[a = \frac{1}{3}\] |  |
| 2.D | \[a = \frac{1}{3}\] |  |
| 3.Đáp án | B |  |
| 4.Đáp án chi tiết | \[\mathop {\lim }\limits\_{x \to a} \left( {\frac{{2{x^3} + {x^2} - x - 2}}{{2{x^2} - 2x}}} \right) = \mathop {\lim }\limits\_{x \to a} \frac{{\left( {x - 1} \right)\left( {2{x^2} + 3x + 2} \right)}}{{\left( {x - 1} \right).2x}} = \mathop {\lim }\limits\_{x \to a} \frac{{2{x^2} + 3x + 2}}{{2x}} = \frac{{2{a^2} + 3a + 2}}{{2a}} = 4\]  \[ \Rightarrow 2{a^2} - 5a + 2 = 0 \Leftrightarrow \left[ \begin{gathered}  a = 2 \hfill \\  a = \frac{1}{2} \hfill \\  \end{gathered} \right.\]  Mà \[a < 1 \Rightarrow a = \frac{1}{2}\] |  |
| 5.Level |  |  |
| 6.Ghi chú | D05 |  |
| **1.a19** | Chọn khẳng định sai: |  |
| 2.A | \[\mathop {\lim }\limits\_{x \to 1} \frac{{{x^4} - {x^2} - 2x + 2}}{{{x^5} - {x^3} + 5x - 5}} = 0\] |  |
| 2.B | \[\mathop {\lim }\limits\_{x \to 0} \left( {\frac{{\sqrt {1 - x} - 1 + 1 - \sqrt[4]{{1 - {x^2}}}}}{x}} \right) = 0\] |  |
| 2.C | \[\mathop {\lim }\limits\_{x \to - 1} \frac{{x + 1}}{{\sqrt {6{x^2} + 3} + 3x}} = 1\] |  |
| 2.D | \[\mathop {\lim }\limits\_{x \to 0} \left( {\frac{{\sqrt {9 + 5x + 4{x^2}} - 3}}{x}} \right) = \frac{5}{6}\] |  |
| 3.Đáp án | B |  |
| 4.Đáp án chi tiết | \[\mathop {\lim }\limits\_{x \to 1} \frac{{{x^4} - {x^2} - 2x + 2}}{{{x^5} - {x^3} + 5x - 5}} = \mathop {\lim }\limits\_{x \to 1} \frac{{(x - 1)({x^3} + {x^2} - 2)}}{{(x - 1)({x^4} + {x^3} + 5)}} = \mathop {\lim }\limits\_{x \to 1} \frac{{{x^3} + {x^2} - 2}}{{{x^4} + {x^3} + 5}} = 0\]  \[\mathop {\lim }\limits\_{x \to 0} \left( {\frac{{\sqrt {1 - x} - 1 + 1 - \sqrt[4]{{1 - {x^2}}}}}{x}} \right) = \mathop {\lim }\limits\_{x \to 0} \left( { - 1 + \frac{{1 - 1 + {x^2}}}{{x(1 + \sqrt[4]{{1 - {x^2}}})(1 + \sqrt {1 - {x^2}} )}}} \right)\]\[ = \mathop {\lim }\limits\_{x \to 0} \left( { - 1 + \frac{x}{{(1 + \sqrt[4]{{1 - {x^2}}})(1 + \sqrt {1 - {x^2}} )}}} \right) = - 1\]  \[\mathop {\lim }\limits\_{x \to - 1} \frac{{x + 1}}{{\sqrt {6{x^2} + 3} + 3x}} = \mathop {\lim }\limits\_{x \to - 1} \frac{{(x + 1)(\sqrt {6{x^2} + 3} - 3x)}}{{3 - 3{x^2}}} = \mathop {\lim }\limits\_{x \to - 1} \frac{{\sqrt {6{x^2} + 3} - 3x}}{{3(1 - x)}}\]\[ = 1\]  \[\mathop {\lim }\limits\_{x \to 0} \left( {\frac{{\sqrt {9 + 5x + 4{x^2}} - 3}}{x}} \right) = \mathop {\lim }\limits\_{x \to 0} \frac{{4{x^2} + 5x}}{{x(\sqrt {9 + 5x + 4{x^2}} + 3)}} = \mathop {\lim }\limits\_{x \to 0} \frac{{4x + 5}}{{\sqrt {9 + 5x + 4{x^2}} + 3}} = \frac{5}{6}\] |  |
| 5.Level |  |  |
| 6.Ghi chú | D05 |  |
| **1.a20** | Tính giới hạn sau: \[\mathop {\lim }\limits\_{x \to a} \frac{{\sqrt {{x^2} + 5} - 3}}{{x + 2}}\] |  |
| 2.A | \[\frac{{a + 2}}{{\sqrt {{a^2} + 5} + 3}}\] |  |
| 2.B | \[\frac{{a - 2}}{{\sqrt {{a^2} + 5} + 3}}\] |  |
| 2.C | \[\frac{{a - 3}}{{\sqrt {{a^2} + 5} + 3}}\] |  |
| 2.D | \[\frac{{a + 3}}{{\sqrt {{a^2} + 5} + 3}}\] |  |
| 3.Đáp án | B |  |
| 4.Đáp án chi tiết | \[\mathop {\lim }\limits\_{x \to a} \frac{{\sqrt {{x^2} + 5} - 3}}{{x + 2}} = \mathop {\lim }\limits\_{x \to a} \left( {\frac{{\left( {\sqrt {{x^2} + 5} - 3} \right)\left( {\sqrt {{x^2} + 5} + 3} \right)}}{{\left( {x + 2} \right)\left( {\sqrt {{x^2} + 5} + 3} \right)}}} \right) = \mathop {\lim }\limits\_{x \to a} \left( {\frac{{(x - 2)(x + 2)}}{{(x + 2)(\sqrt {{x^2} + 5} + 3)}}} \right)\]\[ = \mathop {\lim }\limits\_{x \to a} \left( {\frac{{x - 2}}{{\sqrt {{x^2} + 5} + 3}}} \right) = \frac{{a - 2}}{{\sqrt {{a^2} + 5} + 3}}\] |  |
| 5.Level |  |  |
| 6.Ghi chú | D05 |  |
| **1.a21** | Cho \[\mathop {\lim }\limits\_{x \to a} \frac{{\sqrt {{x^2} + 5} - 3}}{{x + 2}} = 1\]. Tìm a ? |  |
| 2.A | \[a = 2\] |  |
| 2.B | \[a = 5\] |  |
| 2.C | \[a = 3\] |  |
| 2.D | \[a = 10\] |  |
| 3.Đáp án | D |  |
| 4.Đáp án chi tiết | \[\mathop {\lim }\limits\_{x \to a} \frac{{\sqrt {{x^2} + 5} - 3}}{{x + 2}} = \mathop {\lim }\limits\_{x \to a} \left( {\frac{{\left( {\sqrt {{x^2} + 5} - 3} \right)\left( {\sqrt {{x^2} + 5} + 3} \right)}}{{\left( {x + 2} \right)\left( {\sqrt {{x^2} + 5} + 3} \right)}}} \right) = \mathop {\lim }\limits\_{x \to a} \left( {\frac{{\left( {x - 2} \right)\left( {x + 2} \right)}}{{\left( {x + 2} \right)\left( {\sqrt {{x^2} + 5} + 3} \right)}}} \right)\]\[ = \mathop {\lim }\limits\_{x \to a} \left( {\frac{{x - 2}}{{\sqrt {{x^2} + 5} + 3}}} \right) = \frac{{a - 2}}{{\sqrt {{a^2} + 5} + 3}} = 1\]  \[ \Rightarrow a - 2 = \sqrt {{a^2} + 5} + 3 \Leftrightarrow a - 5 = \sqrt {{a^2} + 5} \Leftrightarrow \left\{ \begin{gathered}  a \geqslant 5 \hfill \\  {a^2} - 10a + 25 = {a^2} + 5 \hfill \\  \end{gathered} \right. \Leftrightarrow \left\{ \begin{gathered}  a \geqslant 5 \hfill \\  10a = 20 \hfill \\  \end{gathered} \right. \Leftrightarrow a = 10\] |  |
| 5.Level |  |  |
| 6.Ghi chú | D05 |  |
| **1.a22** | Cho \[\mathop {\lim }\limits\_{x \to a} \frac{{\sqrt {{x^2} + x + 2} - \sqrt {1 - x} }}{{{x^4} + x}}\]\[ = 0\]. Tính giá trị của \[a\]? |  |
| 2.A | \[a = - 3\] |  |
| 2.B | \[a = - 2\] |  |
| 2.C | \[a = - 1\] |  |
| 2.D | \[a = 0\] |  |
| 3.Đáp án | C |  |
| 4.Đáp án chi tiết | \[\mathop {\lim }\limits\_{x \to a} \frac{{\sqrt {{x^2} + x + 2} - \sqrt {1 - x} }}{{{x^4} + x}} = \mathop {\lim }\limits\_{x \to a} \frac{{{x^2} + 2x + 1}}{{({x^4} + x)(\sqrt {{x^2} + x + 2} + \sqrt {1 - x} )}}\]\[ = \mathop {\lim }\limits\_{x \to a} \frac{{x + 1}}{{x({x^2} - x + 1)(\sqrt {{x^2} + x + 2} + \sqrt {1 - x} )}} = 0\]  \[ \Leftrightarrow a + 1 = 0 \Leftrightarrow a = - 1\] |  |
| 5.Level |  |  |
| 6.Ghi chú | D05 |  |
| **1.a23** | Tính giới hạn \[\mathop {\lim }\limits\_{x \to 0} \frac{{\sin 2x}}{{\sqrt {x + 1} - 1}}\] |  |
| 2.A | **6** |  |
| 2.B | **2** |  |
| 2.C | **4** |  |
| 2.D | **3** |  |
| 3.Đáp án | **C** |  |
| 4.Đáp án chi tiết | \[\mathop {\lim }\limits\_{x \to 0} \frac{{\sin 2x}}{{\sqrt {x + 1} - 1}} = \mathop {\lim }\limits\_{x \to 0} \left( {\frac{{\sin 2x}}{{2x}}.\frac{{2x}}{{\sqrt {x + 1} - 1}}} \right) = \mathop {\lim }\limits\_{x \to 0} \left( {\frac{{\sin 2x}}{{2x}}.\frac{{2x\left( {\sqrt {x + 1} + 1} \right)}}{x}} \right) = \mathop {\lim }\limits\_{x \to 0} \left( {\frac{{\sin 2x}}{{2x}}.2\left( {\sqrt {x + 1} + 1} \right)} \right) = 4\] |  |
| 5.Level |  |  |
| 6.Ghi chú | D05 |  |
| **1.a24** | Giới hạn \[\mathop {\lim }\limits\_{x \to 0} \frac{{1 - \cos 4x}}{{x\sin x}}\]có kết quả là |  |
| 2.A | **8** |  |
| 2.B | **4** |  |
| 2.C | **1** |  |
| 2.D | **0** |  |
| 3.Đáp án | **A** |  |
| 4.Đáp án chi tiết | \[\mathop {\lim }\limits\_{x \to 0} \frac{{1 - \cos 4x}}{{x\sin x}}\]\[ = \mathop {\lim }\limits\_{x \to 0} \frac{{2{{\sin }^2}2x}}{{x\sin x}} = \mathop {\lim }\limits\_{x \to 0} \frac{{{{\left( {\frac{{\sin 2x}}{{2x}}} \right)}^2}.8{x^2}}}{{{x^2}\frac{{\sin x}}{x}}} = 8\] |  |
| 5.Level |  |  |
| 6.Ghi chú | D05 |  |
| **1.a25** | Cho \[\mathop {\lim }\limits\_{x \to 2} \frac{{\sqrt {x + 2} - 2}}{{\sin \left( {x - 2} \right)}}\]\[ = \frac{1}{4}\](I) và \[\mathop {\lim }\limits\_{x \to 0} \frac{{\sin 3x}}{{\sqrt {1 - x} - 1}}\]\[ = - 6\](II).Phát biểu nào trong các phát biểu sau là ĐÚNG. |  |
| 2.A | **(I) đúng, (II) sai** |  |
| 2.B | **(I) sai, (II) đúng** |  |
| 2.C | **(I) sai, (II) sai** |  |
| 2.D | **(I) đúng, (II) đúng** |  |
| 3.Đáp án | **D** |  |
| 4.Đáp án chi tiết | \[\mathop {\lim }\limits\_{x \to 2} \frac{{\sqrt {x + 2} - 2}}{{\sin \left( {x - 2} \right)}}\]\[ = \mathop {\lim }\limits\_{x \to 2} \frac{{x - 2}}{{\sin \left( {x - 2} \right)\left( {\sqrt {x + 2} + 2} \right)}} = \frac{1}{4}\]  \[\mathop {\lim }\limits\_{x \to 0} \frac{{\sin 3x}}{{\sqrt {1 - x} - 1}}\]\[ = \mathop {\lim }\limits\_{x \to 0} \left( {\frac{{\sin 3x}}{{3x}}.3.\left( { - \sqrt {1 - x} - 1} \right)} \right) = - 6\] |  |
| 5.Level |  |  |
| 6.Ghi chú | D05 |  |
| **1.a26** | Kết quả của giới hạn \[\mathop {\lim }\limits\_{x \to 0} \frac{{ax\sin bx}}{{1 - \cos ax}},a,b \ne 0\] |  |
| 2.A | \[\frac{b}{a}\] |  |
| 2.B | \[\frac{a}{b}\] |  |
| 2.C | \[\frac{{2a}}{b}\] |  |
| 2.D | \[\frac{{2b}}{a}\] |  |
| 3.Đáp án | **D** |  |
| 4.Đáp án chi tiết | \[\mathop {\lim }\limits\_{x \to 0} \frac{{ax\sin bx}}{{1 - \cos ax}} = \mathop {\lim }\limits\_{x \to 0} \frac{{ab{x^2}.\frac{{\sin bx}}{{bx}}}}{{2{{\sin }^2}\frac{{ax}}{2}}} = \mathop {\lim }\limits\_{x \to 0} \frac{{ab{x^2}.\frac{{\sin bx}}{{bx}}}}{{2.\frac{{{a^2}{x^2}}}{4}.{{\left( {\frac{{\operatorname{s} {\text{in}}\frac{{{\text{ax}}}}{2}}}{{\frac{{ax}}{2}}}} \right)}^2}}} = \frac{{2b}}{a}\] |  |
| 5.Level |  |  |
| 6.Ghi chú | D05 |  |
| **1.a27** | Biết \[\mathop {\lim }\limits\_{x \to 1} \frac{{a\sin \left( {x - 1} \right)}}{{\sqrt {x + 3} - 2}} = 4\]. Tìm \[a\] |  |
| 2.A | **4** |  |
| 2.B | **1** |  |
| 2.C | **2** |  |
| 2.D | **8** |  |
| 3.Đáp án | **B** |  |
| 4.Đáp án chi tiết | \[\mathop {\lim }\limits\_{x \to 1} \frac{{a\sin \left( {x - 1} \right)}}{{\sqrt {x + 3} - 2}}\]\[ = \mathop {\lim }\limits\_{x \to 1} a\frac{{\sin \left( {x - 1} \right)}}{{x - 1}}\left( {\sqrt {x + 3} + 2} \right) = 4a = 4 \Rightarrow a = 1\] |  |
| 5.Level |  |  |
| 6.Ghi chú | D05 |  |
| **1.a28** | **Tính** \[A = {b^2} - 4a\] biết rằng \[\mathop {\lim }\limits\_{x \to 0} \frac{{1 - \cos bx}}{{4 - \sqrt {a{x^2} + 16} }}\]\[ = - 16\] |  |
| 2.A | **2** |  |
| 2.B | **8** |  |
| 2.C | **0** |  |
| 2.D | **16** |  |
| 3.Đáp án | **C** |  |
| 4.Đáp án chi tiết | \[\mathop {\lim }\limits\_{x \to 0} \frac{{1 - \cos bx}}{{4 - \sqrt {a{x^2} + 16} }}\]\[ = \mathop {\lim }\limits\_{x \to 0} \frac{{2{{\sin }^2}\frac{{bx}}{2}\left( {4 + \sqrt {a{x^2} + 16} } \right)}}{{ - \frac{4}{{{b^2}}}.\frac{{{b^2}{x^2}}}{4}.a}} = - \frac{{4{b^2}}}{a} = - 16 \Leftrightarrow {b^2} - 4a = 0\] |  |
| 5.Level |  |  |
| 6.Ghi chú | D05 |  |
| **1.a29** | Tìm \[a,b\] khi \[\mathop {\lim }\limits\_{x \to 0} \frac{{\sin 3x}}{{\sqrt {x + 9a} - 3b}} = 36\] và \[a = {b^2},b > 0\] |  |
| 2.A | \[a = 1,b = 1\] |  |
| 2.B | \[a = 4,b = 2\] |  |
| 2.C | \[a = 9,b = 3\] |  |
| 2.D | \[a = 16,b = 4\] |  |
| 3.Đáp án | **B** |  |
| 4.Đáp án chi tiết | Thay \[a = {b^2}\]vào giới hạn, ta có:  \[\mathop {\lim }\limits\_{x \to 0} \frac{{\sin 3x}}{{\sqrt {x + 9{b^2}} - 3b}}\]\[ = \mathop {\lim }\limits\_{x \to 0} \left( {\frac{{\sin 3x}}{{3x}}.3.\left( {\sqrt {x + 9{b^2}} + 3b} \right)} \right) = 3.6b = 36 \Rightarrow b = 2 \Rightarrow a = 4\] |  |
| 5.Level |  |  |
| 6.Ghi chú | D05 |  |
| **1.a30** | Tính giới hạn \[\mathop {\lim }\limits\_{x \to m} \frac{{{x^3} - \left( {m + 1} \right){x^2} + (m - 2)x + 2m}}{{\sin \left( {x - m} \right)}},m \ne 0\] |  |
| 2.A | \[{m^2} - m - 2\] |  |
| 2.B | \[2{m^2} - m - 1\] |  |
| 2.C | \[m + 2\] |  |
| 2.D | \[m + 1\] |  |
| 3.Đáp án | **A** |  |
| 4.Đáp án chi tiết | \[\begin{gathered}  \mathop {\lim }\limits\_{x \to m} \frac{{{x^3} - \left( {m + 1} \right){x^2} + (m - 2)x + 2m}}{{\sin \left( {x - m} \right)}} = \mathop {\lim }\limits\_{x \to m} \frac{1}{{\frac{{\sin \left( {x - m} \right)}}{{x - m}}}}.\frac{{{x^3} - \left( {m + 1} \right){x^2} + (m - 2)x + 2m}}{{x - m}} \hfill \\  = \mathop {\lim }\limits\_{x \to m} \frac{1}{{\frac{{\sin \left( {x - m} \right)}}{{x - m}}}}.\left( {{x^2} - x - 2} \right) = {m^2} - m - 2 \hfill \\  \end{gathered} \] |  |
| 5.Level |  |  |
| 6.Ghi chú | D05 |  |
| **1.a31** |  |  |
| 2.A |  |  |
| 2.B |  |  |
| 2.C |  |  |
| 2.D |  |  |
| 3.Đáp án |  |  |
| 4.Đáp án chi tiết |  |  |
| 5.Level |  |  |
| 6.Ghi chú |  |  |
| **1.a32** |  |  |
| 2.A |  |  |
| 2.B |  |  |
| 2.C |  |  |
| 2.D |  |  |
| 3.Đáp án |  |  |
| 4.Đáp án chi tiết |  |  |
| 5.Level |  |  |
| 6.Ghi chú |  |  |
| **1.a33** |  |  |
| 2.A |  |  |
| 2.B |  |  |
| 2.C |  |  |
| 2.D |  |  |
| 3.Đáp án |  |  |
| 4.Đáp án chi tiết |  |  |
| 5.Level |  |  |
| 6.Ghi chú |  |  |
| **1.a34** |  |  |
| 2.A |  |  |
| 2.B |  |  |
| 2.C |  |  |
| 2.D |  |  |
| 3.Đáp án |  |  |
| 4.Đáp án chi tiết |  |  |
| 5.Level |  |  |
| 6.Ghi chú |  |  |
| **1.a35** |  |  |
| 2.A |  |  |
| 2.B |  |  |
| 2.C |  |  |
| 2.D |  |  |
| 3.Đáp án |  |  |
| 4.Đáp án chi tiết |  |  |
| 5.Level |  |  |
| 6.Ghi chú |  |  |
| **1.a36** |  |  |
| 2.A |  |  |
| 2.B |  |  |
| 2.C |  |  |
| 2.D |  |  |
| 3.Đáp án |  |  |
| 4.Đáp án chi tiết |  |  |
| 5.Level |  |  |
| 6.Ghi chú |  |  |
| **1.a37** |  |  |
| 2.A |  |  |
| 2.B |  |  |
| 2.C |  |  |
| 2.D |  |  |
| 3.Đáp án |  |  |
| 4.Đáp án chi tiết |  |  |
| 5.Level |  |  |
| 6.Ghi chú |  |  |
| **1.a38** |  |  |
| 2.A |  |  |
| 2.B |  |  |
| 2.C |  |  |
| 2.D |  |  |
| 3.Đáp án |  |  |
| 4.Đáp án chi tiết |  |  |
| 5.Level |  |  |
| 6.Ghi chú |  |  |
| **1.a39** |  |  |
| 2.A |  |  |
| 2.B |  |  |
| 2.C |  |  |
| 2.D |  |  |
| 3.Đáp án |  |  |
| 4.Đáp án chi tiết |  |  |
| 5.Level |  |  |
| 6.Ghi chú |  |  |
| **1.a40** |  |  |
| 2.A |  |  |
| 2.B |  |  |
| 2.C |  |  |
| 2.D |  |  |
| 3.Đáp án |  |  |
| 4.Đáp án chi tiết |  |  |
| 5.Level |  |  |
| 6.Ghi chú |  |  |