|  |
| --- |
|  |

**Advanced Mathematics 1 (Examination Office)**

**Bạn đang ở đây**

* [eLearning](http://cms.fpt.edu.vn/elearning/)
* / ► [MA101-Exam](http://cms.fpt.edu.vn/elearning/course/view.php?id=202)
* / ► [Các đề thi](http://cms.fpt.edu.vn/elearning/mod/quiz/index.php?id=202)
* / ► [Quiz Chapter 8](http://cms.fpt.edu.vn/elearning/mod/quiz/view.php?id=26328)
* / ► Lần thử nghiệm 1

Bạn đang đăng nhập với tên [hungtq01418](http://cms.fpt.edu.vn/elearning/user/view.php?id=1515&course=202) ([Thoát ra](http://cms.fpt.edu.vn/elearning/login/logout.php?sesskey=QC8IpDz3Kq))

**Quiz Chapter 8**

Top of Form

**JavaScript phải có khả năng tiếp tục !**

Question 1

Điểm : 1

Determine whether the series is absolutely convergent, conditionally convergent, or divergent.   
  
[\sum_{n=1}^\infty\frac{(-1)^n \arctan n}{n^5}](http://cms.fpt.edu.vn/elearning/filter/tex/displaytex.php?\sum_%7bn=1%7d%5e\infty\frac%7b(-1)%5en+\arctan+n%7d%7bn%5e5%7d)  
  
Select the correct answer.

Chọn một câu trả lời

|  |  |  |
| --- | --- | --- |
|  | a. absolutely convergent |  |
|  | b. conditionally convergent |  |
|  | c. divergent |  |

Question 2

Điểm : 1

Find a formula for the general term of the sequence, assuming that the pattern of the first few terms continues.

[1,\frac{1}{3},\frac{1}{9},\frac{1}{27},\frac{1}{81},…](http://cms.fpt.edu.vn/elearning/filter/tex/displaytex.php?1,\frac%7b1%7d%7b3%7d,\frac%7b1%7d%7b9%7d,\frac%7b1%7d%7b27%7d,\frac%7b1%7d%7b81%7d,%E2%80%A6)

Chọn một câu trả lời

|  |  |  |
| --- | --- | --- |
|  | a. [a_n=\frac{1}{3^{n-1}}](http://cms.fpt.edu.vn/elearning/filter/tex/displaytex.php?a_n=\frac%7b1%7d%7b3%5e%7bn-1%7d%7d) |  |
|  | b. [a_n=\frac{1}{3n}](http://cms.fpt.edu.vn/elearning/filter/tex/displaytex.php?a_n=\frac%7b1%7d%7b3n%7d) |  |
|  | c. None of the other choices is correct |  |
|  | d. [a_n=\frac{1}{3^{n}}+1](http://cms.fpt.edu.vn/elearning/filter/tex/displaytex.php?a_n=\frac%7b1%7d%7b3%5e%7bn%7d%7d+1) |  |

Question 3

Điểm : 1

Test the series for convergence or divergence.   
  
[\frac{8}{\ln 2}-\frac{8}{\ln 3}+\frac{8}{\ln 4}-\frac{8}{\ln 5}+\frac{8}{\ln 6}-...](http://cms.fpt.edu.vn/elearning/filter/tex/displaytex.php?\frac%7b8%7d%7b\ln+2%7d-\frac%7b8%7d%7b\ln+3%7d+\frac%7b8%7d%7b\ln+4%7d-\frac%7b8%7d%7b\ln+5%7d+\frac%7b8%7d%7b\ln+6%7d-...)  
  
  
Select the correct answer.

Chọn một câu trả lời

|  |  |  |
| --- | --- | --- |
|  | a. the series is convergent |  |
|  | b. the series is divergent |  |

Question 4

Điểm : 1

Find the Taylor polynomial mc016-1.jpgfor the functionmc016-2.jpgat the number *a* = 1.   
  
[f(x)=\sqrt{x}](http://cms.fpt.edu.vn/elearning/filter/tex/displaytex.php?f(x)=\sqrt%7bx%7d)

Chọn một câu trả lời

|  |  |  |
| --- | --- | --- |
|  | a. [1-\frac{1}{2}(x-1)-\frac{1}{8}(x-1)^2](http://cms.fpt.edu.vn/elearning/filter/tex/displaytex.php?1-\frac%7b1%7d%7b2%7d(x-1)-\frac%7b1%7d%7b8%7d(x-1)%5e2) |  |
|  | b. [1-\frac{1}{2}(x-1)+\frac{1}{8}(x-1)^2](http://cms.fpt.edu.vn/elearning/filter/tex/displaytex.php?1-\frac%7b1%7d%7b2%7d(x-1)+\frac%7b1%7d%7b8%7d(x-1)%5e2) |  |
|  | c. [1+\frac{1}{2}(x-1)+\frac{1}{8}(x-1)^2](http://cms.fpt.edu.vn/elearning/filter/tex/displaytex.php?1+\frac%7b1%7d%7b2%7d(x-1)+\frac%7b1%7d%7b8%7d(x-1)%5e2) |  |
|  | d. [1+\frac{1}{2}(x-1)-\frac{1}{8}(x-1)^2](http://cms.fpt.edu.vn/elearning/filter/tex/displaytex.php?1+\frac%7b1%7d%7b2%7d(x-1)-\frac%7b1%7d%7b8%7d(x-1)%5e2) |  |
|  | e. None of the other choices is correct |  |

Question 5

Điểm : 1

A car is moving with speed 16 m/s and acceleration 6m/s2 at a given instant. Using a second-degree Taylor polynomial, estimate how far the car moves in the next second.  
  
Select the correct answer.

Chọn một câu trả lời

|  |  |  |
| --- | --- | --- |
|  | a. 19.5 m |  |
|  | b.   25.5 m |  |
|  | c. 20 m |  |
|  | d. 30 m |  |
|  | e. 19 m |  |

Question 6

Điểm : 1

Find the Taylor polynomial [T_3](http://cms.fpt.edu.vn/elearning/filter/tex/displaytex.php?T_3)for the function f at the number *a* = 1.   
  
f(x)=ln x  
  
Select the correct answer.

Chọn một câu trả lời

|  |  |  |
| --- | --- | --- |
|  | a. [(x-1)+\frac{1}{5}(x-1)^2+\frac{1}{7}(x-1)^3](http://cms.fpt.edu.vn/elearning/filter/tex/displaytex.php?(x-1)+\frac%7b1%7d%7b5%7d(x-1)%5e2+\frac%7b1%7d%7b7%7d(x-1)%5e3) |  |
|  | b. [(x+1)-\frac{1}{4}(x+1)^2+\frac{1}{3}(x+1)^3](http://cms.fpt.edu.vn/elearning/filter/tex/displaytex.php?(x+1)-\frac%7b1%7d%7b4%7d(x+1)%5e2+\frac%7b1%7d%7b3%7d(x+1)%5e3) |  |
|  | c. None of the other choices is correct |  |
|  | d. [(x-1)-\frac{1}{2}(x-1)^2+\frac{1}{3}(x-1)^3](http://cms.fpt.edu.vn/elearning/filter/tex/displaytex.php?(x-1)-\frac%7b1%7d%7b2%7d(x-1)%5e2+\frac%7b1%7d%7b3%7d(x-1)%5e3) |  |
|  | e. [(x+1)-\frac{1}{4}(x+1)^2+\frac{1}{3}(x+1)^3](http://cms.fpt.edu.vn/elearning/filter/tex/displaytex.php?(x+1)-\frac%7b1%7d%7b4%7d(x+1)%5e2+\frac%7b1%7d%7b3%7d(x+1)%5e3) |  |





Bottom of Form

|  |  |  |
| --- | --- | --- |
| |  | | --- | | **Thời gian còn lại** | | Top of Form    Bottom of Form | |

Theme created by [Moodleman](http://cms.fpt.edu.vn/elearning/mod/quiz/attempt.php?q=1180).

Bạn đang đăng nhập với tên [hungtq01418](http://cms.fpt.edu.vn/elearning/user/view.php?id=1515&course=202) ([Thoát ra](http://cms.fpt.edu.vn/elearning/login/logout.php?sesskey=QC8IpDz3Kq))

[Our site is valid CSSOur site is valid XHTML 1.0 Transitional](http://cms.fpt.edu.vn/elearning/mod/quiz/attempt.php?q=1180)