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{\it ection} Introduction
 1 Some basic knowledge about researching problem...
  Parameters and constants we use in this work:
  Constants (3):
      e = 2.718282
      pi = 3.141593
        AbObA = 1337.228690
    Variables (1):
      x = 8.000000
  Parameters of exploration:
       Number of differentiates = 4
       Macloren's\ accuracy\ =3
        Tanget\ point\ = 3.000000
        Delta coverage of tangent point = 2.500000
       Graph diapasone = [-10:10]
 So let's calculate smth with a given function:
        f(x) = (\cos x)^{3.000}
 Firstly, let's simplify this expression (if possible):
        f(x) = (\cos x)^{3.000}
2 Exploration the expression
- Calculation a value of function in the point
      BRITISH SCIENTISTS WERE SHOCKED, WHEN THEY COUNT IT!!!
        In the point M_0(x_0) = (8.000) expression's value = -0.00308
- Finding the first derivation of function
      Personally, I've always thought about first derivation of something like that function... Haven't you?
  But now, by using informatics and math skills I feel that I'm prepared enough to calculate it!
 1 step: Finding a derivation of x
  While preparing for exams, I learned a lot of new things, for example:
  (x)' =
 = 1.000
 2 step: Finding a derivation of \cos x
 Only after two cups of beer you might understand it:
  (\cos x)' =
 = (-1.000) \cdot \sin x
3 step: Finding a derivation of (\cos x)^{3.000}
  Never say it to girls:
((\cos x)^{3.000})' =
= 3.000 \cdot (\cos x)^{2.000} \cdot (-1.000) \cdot \sin x
Congratulations! The first derivation of the expression is:
 f'(x) = 3.000 \cdot (\cos x)^{2.000} \cdot (-1.000) \cdot \sin x
In the point M_0(x_0) = (8.000) it's value = -0.06283
- Finding the 4 derivation
     1) Let's find the 1 derivation of the given function:
 1 step: Finding a derivation of x
 Only by using special skills we might know::
 (x)' = \dots = [\mathbf{top} \ \mathbf{secret}] = \dots =
     = 1.000
2 step: Finding a derivation of \cos x
  What if:
  (\cos x)' =
 = (-1.000) \cdot \sin x
3 step: Finding a derivation of (\cos x)^{3.000}
 Even my two-aged sister knows that:
((\cos x)^{3.000})' =
= 3.000 \cdot (\cos x)^{2.000} \cdot (-1.000) \cdot \sin x
 So the 1 derivation of the function is:
        3.000 \cdot (\cos x)^{2.000} \cdot (-1.000) \cdot \sin x
2) Let's find the 2 derivation of the given function:
1 step: Finding a derivation of x
 The first task in MIPT was to calculate:
  (x)' =
 = 1.000
2 step: Finding a derivation of \sin x
  Never say it to girls:
  (\sin x)' =
 =\cos x
3 step: Finding a derivation of -1.000
 It's simple as fuck:
  (-1.000)' = \dots = [\text{top secret}] = \dots =
      = 0.000
4 step: Finding a derivation of (-1.000) \cdot \sin x
 As we know:
 ((-1.000) \cdot \sin x)' =
 = (-1.000) \cdot \cos x
5 step: Finding a derivation of x
 I was asked not to tell anyone that:
 = 1.000
 6 step: Finding a derivation of \cos x
 Only after two cups of beer you might understand it:
  (\cos x)' = \dots = [\mathbf{top} \ \mathbf{secret}] = \dots =
  = (-1.000) \cdot \sin x
7 step: Finding a derivation of (\cos x)^{2.000}
 Even my two-aged sister knows that:
((\cos x)^{2.000})' =
 = 2.000 \cdot \cos x \cdot (-1.000) \cdot \sin x
8 step: Finding a derivation of 3.000
 Even my two-aged sister knows that:
    (3.000)' =
  = 0.000
9 step: Finding a derivation of 3.000 \cdot (\cos x)^{2.000}
  When I was a child, my father always told me: "Remember, son:
 (3.000 \cdot (\cos x)^{2.000})' =
  = 3.000 \cdot 2.000 \cdot \cos x \cdot (-1.000) \cdot \sin x
10 step: Finding a derivation of 3.000 \cdot (\cos x)^{2.000} \cdot (-1.000) \cdot \sin x
 I have no words to describe this fact:
 (3.000 \cdot (\cos x)^{2.000} \cdot (-1.000) \cdot \sin x)' = \dots = [\text{top secret}] = \dots =
     =3.000 \cdot 2.000 \cdot \cos x \cdot (-1.000) \cdot \sin x \cdot (-1.000) \cdot \sin x + (-1.000) \cdot \cos x \cdot 3.000 \cdot (\cos x)^{2.000}
So the 2 derivation of the function is:
        3.000 \cdot 2.000 \cdot \cos x \cdot (-1.000) \cdot \sin x \cdot (-1.000) \cdot \sin x + (-1.000) \cdot \cos x \cdot 3.000 \cdot (\cos x)^{2.000}
3) Let's find the 3 derivation of the given function:
 1 step: Finding a derivation of x
  My roommate mumbled it in his sleep all night:
 (x)' = \dots = [\mathbf{top} \ \mathbf{secret}] = \dots =
     = 1.000
2 step: Finding a derivation of \cos x
 I have no words to describe this fact:
  (\cos x)' = \dots = [\mathbf{top} \ \mathbf{secret}] = \dots =
    = (-1.000) \cdot \sin x
3 step: Finding a derivation of (\cos x)^{2.000}
 While preparing for exams, I learned a lot of new things, for example:
((\cos x)^{2.000})' =
 = 2.000 \cdot \cos x \cdot (-1.000) \cdot \sin x
4 step: Finding a derivation of 3.000
 It's really easy to find:
  (3.000)' =
  = 0.000
5 step: Finding a derivation of 3.000 \cdot (\cos x)^{2.000}
(3.000 \cdot (\cos x)^{2.000})' = \dots = [\text{top secret}] = \dots =
     = 3.000 \cdot 2.000 \cdot \cos x \cdot (-1.000) \cdot \sin x
6 step: Finding a derivation of x
  You should be aware of the fact that:
  (x)' =
 = 1.000
7 step: Finding a derivation of \cos x
 A true prince must know that:
  (\cos x)' =
 = (-1.000) \cdot \sin x
8 step: Finding a derivation of -1.000
 For centuries, people have hunted for the secret knowledge that:
  (-1.000)' =
  = 0.000
 9 step: Finding a derivation of (-1.000) \cdot \cos x
  I spend the hole of my life to find the answer and finally it's:
 ((-1.000) \cdot \cos x)' = \dots = [\text{top secret}] = \dots =
  = (-1.000) \cdot (-1.000) \cdot \sin x
 10 step: Finding a derivation of (-1.000) \cdot \cos x \cdot 3.000 \cdot (\cos x)^{2.000}
 Never say it to girls:
((-1.000) \cdot \cos x \cdot 3.000 \cdot (\cos x)^{2.000})' =
= (-1.000) \cdot (-1.000) \cdot \sin x \cdot 3.000 \cdot (\cos x)^{2.000} + 3.000 \cdot 2.000 \cdot \cos x \cdot (-1.000) \cdot \sin x \cdot (-1.000) \cdot \cos x
11 step: Finding a derivation of x
 It's really easy to find:
  (x)' =
 = 1.000
 12 step: Finding a derivation of \sin x
  Sometimes I hear the same voice in my head, it always says:
  (\sin x)' = \dots = [\mathbf{top \ secret}] = \dots =
13 step: Finding a derivation of -1.000
 Even my two-aged sister knows that:
 (-1.000)' =
  = 0.000
14 step: Finding a derivation of (-1.000) \cdot \sin x
 Only by using special skills we might know::
 ((-1.000) \cdot \sin x)' =
 = (-1.000) \cdot \cos x
15 step: Finding a derivation of x
 My friends always beat me, because I didn't know that:
  (x)' = \dots = [\text{top secret}] = \dots =
16 step: Finding a derivation of \sin x
  A true prince must know that:
  (\sin x)' = \dots = [\mathbf{top} \ \mathbf{secret}] = \dots =
17 step: Finding a derivation of -1.000
  Sometimes I hear the same voice in my head, it always says:
  (-1.000)' =
  = 0.000
 18 step: Finding a derivation of (-1.000) \cdot \sin x
 Only by using special skills we might know::
 ((-1.000) \cdot \sin x)' = \dots = [\text{top secret}] = \dots =
  = (-1.000) \cdot \cos x
19 step: Finding a derivation of x
  While preparing for exams, I learned a lot of new things, for example:
 = 1.000
20 step: Finding a derivation of \cos x
 She: please, never speak with my dad about math... Me: ok) Also me after homework of matan:
  (\cos x)' = \dots = [\mathbf{top} \ \mathbf{secret}] = \dots =
  = (-1.000) \cdot \sin x
21 step: Finding a derivation of 2.000
 My roommate mumbled it in his sleep all night:
  (2.000)' = \dots = [\text{top secret}] = \dots =
22 step: Finding a derivation of 2.000 \cdot \cos x
 A true prince must know that:
  (2.000 \cdot \cos x)' = \dots = [\text{top secret}] = \dots =
     = 2.000 \cdot (-1.000) \cdot \sin x
23 step: Finding a derivation of 2.000 \cdot \cos x \cdot (-1.000) \cdot \sin x
 A true prince must know that:
  (2.000 \cdot \cos x \cdot (-1.000) \cdot \sin x)' =
 = 2.000 \cdot (-1.000) \cdot \sin x \cdot (-1.000) \cdot \sin x + (-1.000) \cdot \cos x \cdot 2.000 \cdot \cos x
24 step: Finding a derivation of 3.000
  If someone asked me that in the middle of the night, I wouldn't hesitate to say:
    (3.000)' =
  = 0.000
 25 step: Finding a derivation of 3.000 \cdot 2.000 \cdot \cos x \cdot (-1.000) \cdot \sin x
  When I was a child, my father always told me: "Remember, son:
    (3.000 \cdot 2.000 \cdot \cos x \cdot (-1.000) \cdot \sin x)' = \dots = [\text{top secret}] = \dots =
      =3.000\cdot (2.000\cdot (-1.000)\cdot \sin x\cdot (-1.000)\cdot \sin x+(-1.000)\cdot \cos x\cdot 2.000\cdot \cos x)
 26 step: Finding a derivation of 3.000 \cdot 2.000 \cdot \cos x \cdot (-1.000) \cdot \sin x \cdot (-1.000) \cdot \sin x
    thanks to the results of my colleagues' scientific work, I know that:
  (3.000 \cdot 2.000 \cdot \cos x \cdot (-1.000) \cdot \sin x \cdot (-1.000) \cdot \sin x)' =
  =3.000\cdot(2.000\cdot(-1.000)\cdot\sin x\cdot(-1.000)\cdot\sin x+(-1.000)\cdot\cos x\cdot2.000\cdot\cos x)\cdot(-1.000)\cdot\sin x+(-1.000)\cdot\cos x\cdot3.000\cdot2.000\cdot\cos x\cdot(-1.000)\cdot\sin x
27 step: Finding a derivation of 3.000 \cdot 2.000 \cdot \cos x \cdot (-1.000) \cdot \sin x \cdot (-1.000) \cdot \sin x + (-1.000) \cdot \cos x \cdot 3.000 \cdot (\cos x)^{2.000}
 For centuries, people have hunted for the secret knowledge that:
 (3.000 \cdot 2.000 \cdot \cos x \cdot (-1.000) \cdot \sin x \cdot (-1.000) \cdot \sin x + (-1.000) \cdot \cos x \cdot 3.000 \cdot (\cos x)^{2.000})' = \dots = [\textbf{top secret}] = \dots = [\textbf{top secret}] = \dots = (-1.000) \cdot (-1.
     =3.000\cdot(2.000\cdot(-1.000)\cdot\sin x\cdot(-1.000)\cdot\sin x+(-1.000)\cdot\cos x\cdot2.000\cdot\cos x)\cdot(-1.000)\cdot\sin x+(-1.000)\cdot\sin x+(-1.000)\cdot\cos x+(-1.
  So the 3 derivation of the function is:
        3.000 \cdot (2.000 \cdot (-1.000) \cdot \sin x \cdot (-1.000) \cdot \sin x + (-1.000) \cdot \cos x \cdot 2.000 \cdot \cos x) \cdot (-1.000) \cdot \sin x + (-1.000) \cdot \cos x \cdot 3.000 \cdot 2.000 \cdot \cos x \cdot (-1.000) \cdot \sin x + (-1.000) \cdot \sin x \cdot (-1.000) 
4) Let's find the 4 derivation of the given function:
 1 step: Finding a derivation of x
 If someone asked me that in the middle of the night, I wouldn't hesitate to say:
  (x)' =
 = 1.000
2 step: Finding a derivation of \cos x
  A true prince must know that:
  (\cos x)' =
 = (-1.000) \cdot \sin x
3 step: Finding a derivation of -1.000
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My roommate mumbled it in his sleep all night:
    (-1.000)' = \dots = [\text{top secret}] = \dots =
  4 step: Finding a derivation of (-1.000) \cdot \cos x
    Sometimes I hear the same voice in my head, it always says:
   ((-1.000) \cdot \cos x)' = \dots = [\text{top secret}] = \dots =
      = (-1.000) \cdot (-1.000) \cdot \sin x
  5 step: Finding a derivation of x
  It was a tragic moment when I learned it on matan exam:
   = 1.000
  6 step: Finding a derivation of \sin x
    Only by using special skills we might know::
    (\sin x)' = \dots = [\mathbf{top} \ \mathbf{secret}] = \dots =
  7 step: Finding a derivation of -1.000
   She: please, never speak with my dad about math... Me: ok) Also me after homework of matan:
    (-1.000)' =
    = 0.000
  8 step: Finding a derivation of (-1.000) \cdot \sin x
   My friends always beat me, because I didn't know that:
   ((-1.000) \cdot \sin x)' =
   = (-1.000) \cdot \cos x
  9 step: Finding a derivation of x
   A true prince must know that:
    (x)' =
   = 1.000
  10 step: Finding a derivation of \cos x
   Lol, i remember that:
    (\cos x)' = \dots = [\mathbf{top \ secret}] = \dots =
    = (-1.000) \cdot \sin x
11 step: Finding a derivation of 2.000
   Lol, i remember that:
    (2.000)' =
   = 0.000
  12 step: Finding a derivation of 2.000 \cdot \cos x
   Only after two cups of beer you might understand it:
    (2.000 \cdot \cos x)' = \dots = [\mathbf{top \ secret}] = \dots =
       =2.000\cdot(-1.000)\cdot\sin x
  13 step: Finding a derivation of 2.000 \cdot \cos x \cdot (-1.000) \cdot \sin x
    (2.000 \cdot \cos x \cdot (-1.000) \cdot \sin x)' =
   = 2.000 \cdot (-1.000) \cdot \sin x \cdot (-1.000) \cdot \sin x + (-1.000) \cdot \cos x \cdot 2.000 \cdot \cos x
  14 step: Finding a derivation of 3.000
   It's really easy to find:
    (3.000)' =
    = 0.000
  15 step: Finding a derivation of 3.000 \cdot 2.000 \cdot \cos x \cdot (-1.000) \cdot \sin x
    Sometimes I hear the same voice in my head, it always says:
    (3.000 \cdot 2.000 \cdot \cos x \cdot (-1.000) \cdot \sin x)' =
    = 3.000 \cdot (2.000 \cdot (-1.000) \cdot \sin x \cdot (-1.000) \cdot \sin x + (-1.000) \cdot \cos x \cdot 2.000 \cdot \cos x)
  16 step: Finding a derivation of 3.000 \cdot 2.000 \cdot \cos x \cdot (-1.000) \cdot \sin x \cdot (-1.000) \cdot \cos x
   My friends always beat me, because I didn't know that:
    (3.000 \cdot 2.000 \cdot \cos x \cdot (-1.000) \cdot \sin x \cdot (-1.000) \cdot \cos x)' =
   =3.000\cdot (2.000\cdot (-1.000)\cdot \sin x\cdot (-1.000)\cdot \sin x+(-1.000)\cdot \cos x\cdot 2.000\cdot \cos x)\cdot (-1.000)\cdot \cos x+(-1.000)\cdot (-1.000)\cdot \sin x\cdot 3.000\cdot 2.000\cdot \cos x\cdot (-1.000)\cdot \sin x
  17 step: Finding a derivation of x
    Man... Just look:
    (x)' =
   = 1.000
  18 step: Finding a derivation of \cos x
   Sounds logical that it is the same as:
    (\cos x)' = \dots = [\mathbf{top} \ \mathbf{secret}] = \dots =
    = (-1.000) \cdot \sin x
 19 step: Finding a derivation of (\cos x)^{2.000}
    You should be aware of the fact that:
   ((\cos x)^{2.000})' =
   = 2.000 \cdot \cos x \cdot (-1.000) \cdot \sin x
  20 step: Finding a derivation of 3.000
   Only after two cups of beer you might understand it:
    = 0.000
 21 step: Finding a derivation of 3.000 \cdot (\cos x)^{2.000}
   You should be aware of the fact that:
  (3.000 \cdot (\cos x)^{2.000})' =
   = 3.000 \cdot 2.000 \cdot \cos x \cdot (-1.000) \cdot \sin x
  22 step: Finding a derivation of x
    What if:
    (x)' =
   = 1.000
  23 step: Finding a derivation of \sin x
   Only after two cups of beer you might understand it:
    (\sin x)' =
   =\cos x
  24 step: Finding a derivation of -1.000
   Lol, i remember that:
   (-1.000)' = \dots = [\text{top secret}] = \dots =
       = 0.000
  25 step: Finding a derivation of (-1.000) \cdot \sin x
   thanks to the results of my colleagues' scientific work, I know that:
   ((-1.000) \cdot \sin x)' =
   = (-1.000) \cdot \cos x
  26 step: Finding a derivation of -1.000
   Only by using special skills we might know::
   (-1.000)' =
   = 0.000
  27 step: Finding a derivation of (-1.000) \cdot (-1.000) \cdot \sin x
   I have no words to describe this fact:
   ((-1.000) \cdot (-1.000) \cdot \sin x)' =
   = (-1.000) \cdot (-1.000) \cdot \cos x
 28 step: Finding a derivation of (-1.000) \cdot (-1.000) \cdot \sin x \cdot 3.000 \cdot (\cos x)^{2.000}
   I always try not to panic, but this thing scares me:
  ((-1.000) \cdot (-1.000) \cdot \sin x \cdot 3.000 \cdot (\cos x)^{2.000})' = \dots = [\text{top secret}] = \dots =
   = (-1.000) \cdot (-1.000) \cdot \cos x \cdot 3.000 \cdot (\cos x)^{2.000} + 3.000 \cdot 2.000 \cdot \cos x \cdot (-1.000) \cdot \sin x \cdot (-1.000) \cdot (-1.000) \cdot \sin x
  29 step: Finding a derivation of (-1.000) \cdot (-1.000) \cdot \sin x \cdot 3.000 \cdot (\cos x)^{2.000} + 3.000 \cdot 2.000 \cdot \cos x \cdot (-1.000) \cdot \sin x \cdot (-1.000) \cdot \cos x
   Even my two-aged sister knows that:
  ((-1.000) \cdot (-1.000) \cdot \sin x \cdot 3.000 \cdot (\cos x)^{2.000} + 3.000 \cdot 2.000 \cdot \cos x \cdot (-1.000) \cdot \sin x \cdot (-1.000) \cdot \cos x)' = (-1.000) \cdot \sin x \cdot 3.000 \cdot (\cos x)^{2.000} + 3.000 \cdot 2.000 \cdot \cos x \cdot (-1.000) \cdot \sin x \cdot (-1.000) \cdot \cos x)' = (-1.000) \cdot (\cos x)^{2.000} + 3.000 \cdot
  = (-1.000) \cdot (-1.000) \cdot \cos x \cdot 3.000 \cdot (\cos x)^{2.000} + 3.000 \cdot 2.000 \cdot \cos x \cdot (-1.000) \cdot \sin x \cdot (-1.000) \cdot (-
  30 step: Finding a derivation of x
   If someone asked me that in the middle of the night, I wouldn't hesitate to say:
   = 1.000
  31 step: Finding a derivation of \sin x
   It's simple as fuck:
    (\sin x)' = \dots = [\mathbf{top \ secret}] = \dots =
  32 step: Finding a derivation of -1.000
   I always try not to panic, but this thing scares me:
   (-1.000)' =
    = 0.000
  33 step: Finding a derivation of (-1.000) \cdot \sin x
   Sounds logical that it is the same as:
   ((-1.000) \cdot \sin x)' = \dots = [\text{top secret}] = \dots =
    = (-1.000) \cdot \cos x
  34 step: Finding a derivation of x
   thanks to the results of my colleagues' scientific work, I know that:
    (x)' =
   = 1.000
  35 step: Finding a derivation of \cos x
  For centuries, people have hunted for the secret knowledge that:
   = (-1.000) \cdot \sin x
   36 step: Finding a derivation of 2.000
    Sometimes I hear the same voice in my head, it always says:
    (2.000)' = \dots = [top secret] = \dots =
        = 0.000
  37 step: Finding a derivation of 2.000 \cdot \cos x
   It's really easy to find:
    (2.000 \cdot \cos x)' =
   =2.000\cdot(-1.000)\cdot\sin x
  38 step: Finding a derivation of 2.000 \cdot \cos x \cdot (-1.000) \cdot \sin x
   I have no words to describe this fact:
    (2.000 \cdot \cos x \cdot (-1.000) \cdot \sin x)' =
   = 2.000 \cdot (-1.000) \cdot \sin x \cdot (-1.000) \cdot \sin x + (-1.000) \cdot \cos x \cdot 2.000 \cdot \cos x
   39 step: Finding a derivation of 3.000
    A true prince must know that:
    (3.000)' =
   = 0.000
  40 step: Finding a derivation of 3.000 \cdot 2.000 \cdot \cos x \cdot (-1.000) \cdot \sin x
   It's really easy to find:
   (3.000 \cdot 2.000 \cdot \cos x \cdot (-1.000) \cdot \sin x)' =
   = 3.000 \cdot (2.000 \cdot (-1.000) \cdot \sin x \cdot (-1.000) \cdot \sin x + (-1.000) \cdot \cos x \cdot 2.000 \cdot \cos x)
  41 step: Finding a derivation of x
    While preparing for exams, I learned a lot of new things, for example:
    (x)' =
   = 1.000
  42 step: Finding a derivation of \cos x
   A true prince must know that:
    (\cos x)' =
   = (-1.000) \cdot \sin x
  43 step: Finding a derivation of -1.000
   She: please, never speak with my dad about math... Me: ok) Also me after homework of matan:
   (-1.000)' =
   = 0.000
  44 step: Finding a derivation of (-1.000) \cdot \cos x
((-1.000) \cdot \cos x)' =
   = (-1.000) \cdot (-1.000) \cdot \sin x
  45 step: Finding a derivation of (-1.000) \cdot \cos x \cdot 3.000 \cdot 2.000 \cdot \cos x \cdot (-1.000) \cdot \sin x
   If someone asked me that in the middle of the night, I wouldn't hesitate to say:
   ((-1.000) \cdot \cos x \cdot 3.000 \cdot 2.000 \cdot \cos x \cdot (-1.000) \cdot \sin x)' = \dots = [\text{top secret}] = \dots =
      = (-1.000) \cdot (-1.000) \cdot \sin x \cdot 3.000 \cdot 2.000 \cdot \cos x \cdot (-1.000) \cdot \sin x + 3.000 \cdot (2.000 \cdot (-1.000) \cdot \sin x \cdot (-1.000) \cdot \sin x + (-1.000) \cdot \cos x \cdot 2.000 \cdot \cos x) \cdot (-1.000) \cdot \cos x \cdot (-1.000) \cdot (-1.0
  46 step: Finding a derivation of x
   Lol, i remember that:
    (x)' =
   = 1.000
  47 step: Finding a derivation of \sin x
      What if:
      (\sin x)' =
    =\cos x
  48 step: Finding a derivation of -1.000
   As we know:
   (-1.000)' =
    = 0.000
  49 step: Finding a derivation of (-1.000) \cdot \sin x
   Lol, i remember that:
   ((-1.000) \cdot \sin x)' =
   = (-1.000) \cdot \cos x
  50 step: Finding a derivation of x
   I spend the hole of my life to find the answer and finally it's:
    (x)' =
   = 1.000
  51 step: Finding a derivation of \cos x
    She: please, never speak with my dad about math... Me: ok) Also me after homework of matan:
   = (-1.000) \cdot \sin x
  52 step: Finding a derivation of 2.000
   For centuries, people have hunted for the secret knowledge that:
    (2.000)' =
    = 0.000
  53 step: Finding a derivation of 2.000 \cdot \cos x
   I have no words to describe this fact:
   (2.000 \cdot \cos x)' =
   =2.000\cdot(-1.000)\cdot\sin x
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55 step: Finding a derivation of  $\cos x$ For contains, people have lamited for the secret knowledge that:  $(\cos x)' =$   $= \{1.000' \cdot \sin x\}$ 56 step: Finding a derivation of -1.000If someone asked we that in the middle of the night, I wouldn't healtage to say:  $(-1.000)' = \dots = [\cos \sec x] = \dots =$  -0.00057 step: Finding a derivation of  $(-1.000) \cdot \cos x$ 

54 step: Finding a derivation of x

(x)' =

My friends always beat me, because I didn't know that:

Children of USSR must know that:  $((-1.000) \cdot \cos x)' = \dots = [\text{top secret}] = \dots =$  $= (-1.000) \cdot (-1.000) \cdot \sin x$ 58 step: Finding a derivation of  $(-1.000) \cdot \cos x \cdot 2.000 \cdot \cos x$ Sometimes I hear the same voice in my head, it always says:  $((-1.000) \cdot \cos x \cdot 2.000 \cdot \cos x)' =$  $= (-1.000) \cdot (-1.000) \cdot \sin x \cdot 2.000 \cdot \cos x + 2.000 \cdot (-1.000) \cdot \sin x \cdot (-1.000) \cdot \cos x$ 59 step: Finding a derivation of xWhile preparing for exams, I learned a lot of new things, for example: = 1.00060 step: Finding a derivation of  $\sin x$ Never say it to girls:  $(\sin x)' =$ 61 step: Finding a derivation of -1.000Sometimes I hear the same voice in my head, it always says: (-1.000)' == 0.00062 step: Finding a derivation of  $(-1.000) \cdot \sin x$ Man... Just look:  $((-1.000) \cdot \sin x)' =$  $= (-1.000) \cdot \cos x$ 63 step: Finding a derivation of xChildren of USSR must know that:  $(x)' = \dots = [\text{top secret}] = \dots =$ = 1.00064 step: Finding a derivation of  $\sin x$ What if:  $(\sin x)' = \dots = [\mathbf{top} \ \mathbf{secret}] = \dots =$  $=\cos x$ 65 step: Finding a derivation of -1.000Lol, i remember that:  $(-1.000)' = \dots = [top secret] = \dots =$ 66 step: Finding a derivation of  $(-1.000) \cdot \sin x$ A true prince must know that:  $((-1.000) \cdot \sin x)' = \dots = [\text{top secret}] = \dots =$  $= (-1.000) \cdot \cos x$ 67 step: Finding a derivation of 2.000 It's simple as fuck: = 0.00068 step: Finding a derivation of  $2.000 \cdot (-1.000) \cdot \sin x$ The first task in MIPT was to calculate:  $(2.000 \cdot (-1.000) \cdot \sin x)' =$  $=2.000\cdot(-1.000)\cdot\cos x$ 69 step: Finding a derivation of  $2.000 \cdot (-1.000) \cdot \sin x \cdot (-1.000) \cdot \sin x$ As we know:  $(2.000 \cdot (-1.000) \cdot \sin x \cdot (-1.000) \cdot \sin x)' =$  $= 2.000 \cdot (-1.000) \cdot \cos x \cdot (-1.000) \cdot \sin x + (-1.000) \cdot \cos x \cdot 2.000 \cdot (-1.000) \cdot \sin x$ 70 step: Finding a derivation of  $2.000 \cdot (-1.000) \cdot \sin x \cdot (-1.000) \cdot \sin x + (-1.000) \cdot \cos x \cdot 2.000 \cdot \cos x$ Man... Just look:  $(2.000 \cdot (-1.000) \cdot \sin x \cdot (-1.000) \cdot \sin x + (-1.000) \cdot \cos x \cdot 2.000 \cdot \cos x)' = \dots = [\text{top secret}] = \dots = [\text{top secret}]$  $=2.000\cdot (-1.000)\cdot \cos x\cdot (-1.000)\cdot \sin x+(-1.000)\cdot \cos x\cdot 2.000\cdot (-1.000)\cdot \sin x+(-1.000)\cdot (-1.000)\cdot \sin x\cdot 2.000\cdot (-1.000)\cdot \sin x\cdot (-1.000)\cdot \sin x\cdot (-1.000)\cdot \cos x$ 71 step: Finding a derivation of 3.000 I spend the hole of my life to find the answer and finally it's: = 0.00072 step: Finding a derivation of  $3.000 \cdot (2.000 \cdot (-1.000) \cdot \sin x \cdot (-1.000) \cdot \sin x + (-1.000) \cdot \cos x \cdot 2.000 \cdot \cos x$ A true prince must know that:  $(3.000 \cdot (2.000 \cdot (-1.000) \cdot \sin x \cdot (-1.000) \cdot \sin x + (-1.000) \cdot \cos x \cdot 2.000 \cdot \cos x))' =$  $=3.000\cdot(2.000\cdot(-1.000)\cdot\cos x\cdot(-1.000)\cdot\sin x+(-1.000)\cdot\cos x\cdot2.000\cdot(-1.000)\cdot\sin x+(-1.000)\cdot(-1.000)\cdot\sin x\cdot2.000\cdot(-1.000)\cdot\sin x\cdot(-1.000)\cdot\sin x\cdot(-1.000)\cdot\cos x$ 73 step: Finding a derivation of  $3.000 \cdot (2.000 \cdot (-1.000) \cdot \sin x \cdot (-1.000) \cdot \sin x + (-1.000) \cdot \cos x \cdot 2.000 \cdot \cos x) \cdot (-1.000) \cdot \sin x$  $(3.000 \cdot (2.000 \cdot (-1.000) \cdot \sin x \cdot (-1.000) \cdot \sin x + (-1.000) \cdot \cos x \cdot 2.000 \cdot \cos x) \cdot (-1.000) \cdot \sin x)' = (3.000 \cdot (-1.000) \cdot \sin x \cdot (-1.000) \cdot \sin x) \cdot (-1.000) \cdot \sin x \cdot (-1.000) \cdot \cos x \cdot (-1.000) \cdot \sin x \cdot (-1.000) \cdot \sin x \cdot (-1.000) \cdot \cos x \cdot (-1.000) \cdot \sin x \cdot (-1.000) \cdot (-1$  $=3.000\cdot(2.000\cdot(-1.000)\cdot\cos x\cdot(-1.000)\cdot\cos x\cdot(-1.000)\cdot\sin x+(-1.000)\cdot\cos x\cdot2.000\cdot(-1.000)\cdot\sin x+(-1.000)\cdot\cos x\cdot2.000\cdot(-1.000)\cdot\cos x+(-1.000)\cdot\cos x\cdot2.000\cdot(-1.000)\cdot\cos x+(-1.000)\cdot\cos x+(-1$ 74 step: Finding a derivation of  $3.000 \cdot (2.000 \cdot (-1.000) \cdot \sin x \cdot (-1.000) \cdot \sin x + (-1.000) \cdot \cos x \cdot 2.000 \cdot \cos x) \cdot (-1.000) \cdot \sin x + (-1.000) \cdot \cos x \cdot 3.000 \cdot 2.000 \cdot \cos x \cdot (-1.000) \cdot \sin x$ My roommate mumbled it in his sleep all night:  $(3.000 \cdot (2.000 \cdot (-1.000) \cdot \sin x \cdot (-1.000) \cdot \sin x + (-1.000) \cdot \cos x \cdot 2.000 \cdot \cos x) \cdot (-1.000) \cdot \sin x + (-1.000) \cdot \cos x \cdot 3.000 \cdot 2.000 \cdot \cos x \cdot (-1.000) \cdot \sin x)' = (3.000 \cdot (-1.000) \cdot \sin x \cdot (-1.000) \cdot \sin x \cdot (-1.000) \cdot \sin x) \cdot (-1.000) \cdot \sin x \cdot (-1.000) \cdot ( = 3.000 \cdot (2.000 \cdot (-1.000) \cdot \cos x \cdot (-1.000) \cdot \sin x + (-$ 75 step: Finding a derivation of  $3.000 \cdot (2.000 \cdot (-1.000) \cdot \sin x \cdot (-1.000) \cdot \sin x \cdot (-1.000) \cdot \sin x + (-1.000) \cdot \cos x \cdot 2.000 \cdot \cos x \cdot (-1.000) \cdot \sin x + (-1.000) \cdot \sin x \cdot (-1.000) \cdot (-1.000) \cdot (-1.000) \cdot (-1.000)$ When I was a child, my father always told me: "Remember, son:  $(3.000 \cdot (2.000 \cdot (-1.000) \cdot \sin x \cdot (-1.000) \cdot (-1.000) \cdot \sin x \cdot (-1.000) \cdot$  $= 3.000 \cdot (2.000 \cdot (-1.000) \cdot \sin x + (-1.000) \cdot \cos x \cdot (-1.000) \cdot \sin x + (-1.000) \cdot \cos x \cdot (-1.000) \cdot \sin x + (-1.000) \cdot \sin x \cdot (-1.000) \cdot \sin x + (-1.000) \cdot \cos x \cdot (-1.000) \cdot \sin x + (-1.000) \cdot \sin x \cdot (-1.000) \cdot \sin x + (-1.000) \cdot \sin x \cdot (-$ So the 4 derivation of the function is:  $3.000 \cdot (2.000 \cdot (-1.000) \cdot \cos x \cdot (-1.000) \cdot \cos x \cdot (-1.000) \cdot \sin x + (-1.000) \cdot \cos x \cdot (-1.000) \cdot \sin x + (-1.000) \cdot \cos x \cdot (-1.000) \cdot \sin x + (-1.000) \cdot \cos x \cdot (-1.000) \cdot \sin x + (-1.000) \cdot \cos x \cdot (-1.000) \cdot \sin x + (-1.000) \cdot \cos x \cdot (-1.000) \cdot \sin x + (-1.000) \cdot \sin x \cdot (-1.000) \cdot \sin x + (-1.000) \cdot \cos x \cdot (-1.000) \cdot \sin x + (-1.000) \cdot \sin x \cdot (-1.000) \cdot \sin x + (-1.000) \cdot \cos x \cdot (-1.000) \cdot \sin x + (-1.000) \cdot \sin x \cdot (-1.000) \cdot \sin x + (-1.000) \cdot \sin x \cdot (-1.000) \cdot \sin x \cdot (-1.000) \cdot \sin x + (-1.000) \cdot \sin x \cdot (-1.$ Finally... The 4 derivation of the expression:  $f^{(4)}(\mathbf{x}) = 3.000 \cdot (2.000 \cdot (-1.000) \cdot \sin x + (-1.000) \cdot (\cos x \cdot 2.000 \cdot (\cos x) \cdot (-1.000) \cdot \sin x + (-1.000) \cdot (\cos x \cdot 2.000 \cdot (\cos x) \cdot (-1.000) \cdot \sin x + (-1.000) \cdot (\cos x \cdot 2.000 \cdot (\cos x) \cdot (-1.000) \cdot \sin x + (-1.000) \cdot (\cos x \cdot 2.000 \cdot (\cos x) \cdot (-1.000) \cdot \sin x \cdot (-1.000) \cdot (\cos x \cdot 2.000 \cdot (\cos x) \cdot (-1.000) \cdot (\cos x \cdot 2.00$ BRITISH SCIENTISTS WERE SHOCKED AGAIN, BECAUSE THEY COUNT THE 4 DERIVATION OF THIS FUNCTION!!! In the point  $M_0(x_0) = (8.000)$  it's value = 8.48050 - Finding partical derivations Partial derivation of the expression on the variable  $\mathbf{x}$ :  $\frac{\partial f}{\partial x} = 3.000 \cdot (\cos x)^{2.000} \cdot (-1.000) \cdot \sin x$ In the point  $M_0(x_0) = (8.000)$  it's value = -0.06283 !!! - Finding full derivation Full derivation:  $\sqrt{(3.000 \cdot (\cos x)^{2.000} \cdot (-1.000) \cdot \sin x)^{2.000}}$ In the point  $M_0(x_0) = (8.000)$  it's value = 0.06283!!! - Decomposing on Macloren's formula Maklorens formula for  $x \to x_0 = 8.000$ :  $f(x) = (-0.003) + (-0.063) \cdot (x - 8.000) + (-0.423) \cdot (x - 8.000)^{2.000} + (-0.895) \cdot (x - 8.000)^{3.000} + o((x - 8.000)^{3.000})$  $((\cos(x))^{**}(3,000))$  — - Equations in the point

- Graphics Graph of  $f(x) = (\cos x)^{3.000}$  on the diapasone  $x \in [-10:10]$ :

Tangent equation in  $x_0 = 3.000$ :  $f(x) = (-0.415) \cdot (x - 3.000) + (-0.970)$ Normal equation in  $x_0 = 3.00000$ :  $f(x) = 2.410 \cdot (x - 3.000) + (-0.970)$ **Their graphs** in  $\delta = 2.500$  coverage of the point  $x_0 = 3.000$ : (((cos(x))\*\*(3.000)) (((-0.415)\*((x)-(3.000)))+(-0.970)) (((2.410)\*((x)-(3.000)))+(-0.970))

3 Conclusion Thanks Ded for this amazing code experience and a lot of useful advice! Happy New Year!!! (Programming language is coming soon...