O jeigu dirbtinį intelektą turėsime savo kišenėje? Pokyčiai ir jų valdymas – diskusija

MMK ir visi diskusijos dalyviai

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Dirbtinis intelektas tapo kasdienine populiaria tema pačiuose įvairiausiuose socialiniuose tinkluose ir terpėse.

Šios dienos susitikimo tikslas padiskutuoti apie keletą DI aspektų, kurie gal būt priartins mus prie atsakymo į garsųjį klausimą, kur padėti kablelį

Leisti negalima uždrausti.

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Bandykime, bet ... niekas neribos Jūsų pasisakymų tematikos. Formatas: trumpas iki 3 minučių problemos pristatymas ir tada diskusija.

Trukmė: 60 minučių (arba trumpiau, jei neliks dalyvių).

Although the core function of a chatbot is to mimic a human conversationalist, ChatGPT is versatile.

Among countless examples, it can write and debug computer programs,
compose music, teleplays, fairy tales and student essays,
answer test questions (sometimes, depending on the test, at a level above the average human test-taker),
write poetry and song lyrics,
translate and summarize text,
emulate a Linux system,
simulate entire chat rooms, play games like tic-tac-toe.
ChatGPT's training data includes man pages, information about internet phenomena such as bulletin board systems, and multiple programming languages.

Mums svarbiausia šios analizės kryptis yra faktas, kad ChatGPT kaip DI atstovas pastoviai mokosi ir priimdamas sprendimus tampa vis savarankiškesnis (nesikonsultuoja su mokytoju). Žmogaus poveikis tampa vis mažiau aiškus, nekontroliuojame "AI mąstymo eigos".

Solve the equation

$$x^5 - x^2 = 0.$$

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To solve the equation $x^5 - x^2 = 0$, we can factor out x^2 from both terms:

$$x^2(x^3 - 1) = 0.$$

Now we have two factors: $x^2 = 0$ and $x^3 - 1 = 0$. Let's solve each factor separately:

1.

$$x^2 = 0.$$

Taking the square root of both sides, we find: $x = 0$.

2.

$$x^3 - 1 = 0.$$

Add 1 to both sides: $x^3 = 1$, thus we get $x = 1$. Therefore, the solutions to the equation $x^5 - x^2 = 0$ are $x = 0$ and $x = 1$.

Solve the equation

$$x^5 - x^2 = 1.$$

The equation $x^5 - x^2 - 1 = 0$ is a quintic equation and does not have a simple algebraic solution. We can use numerical methods to approximate the solutions.

One commonly used numerical method is the Newton-Raphson method. By applying this method iteratively, we can approximate the roots of the equation.

Let's start with an initial guess, such as $x_0 = 1$ and apply the Newton-Raphson iteration

$$x_{n+1} = x_n - f(x_n)/f^{'}(x_n).$$

Performing several iterations, we can find the following approximations:

$$x_1 \approx 1.228598, \quad x_2 \approx 1.167303, \quad x_3 \approx 1.167303.$$

Please note that these approximations are rounded and may have additional decimal places depending on the desired level of accuracy.

Check the accuracy of these approximations.

To check the accuracy of the approximations for the equation $x^5 - x^2 - 1 = 0$ we can substitute the approximated values back into the equation and evaluate the result.

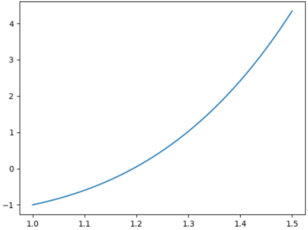
Let's check the accuracy of the approximations:
For $x_1 \approx 1.228598$:

$$(1.228598)^5 - (1.228598)^2 - 1 \approx -0.000084$$

(rounded to 6 decimal places.)

The result is very close to 0, confirming the accuracy of the approximation.

Deja, toks atsakymas yra neteisingas.



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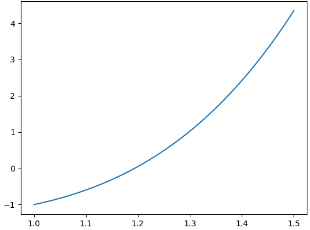

Teisingas atsakymas yra toks, o jo netiktis:

$$x = 1.1938591113212, \quad \rho = -0.0000000000002.$$

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In this code, the $equation(x)$ function represents the equation we want to solve, and the $derivative(x)$ function calculates the derivative of the equation.

The $newton\_raphson(guess, tolerance, max\_iterations)$ function takes an initial guess for the root and iteratively refines it until the equation's value is within the specified tolerance or until the maximum number of iterations is reached.

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The root of the equation is: 1.193859111321223

To prove that a number between two twin primes is divisible by 6, we need to make use of some properties of prime numbers and divisibility rules.

First, let's define twin primes. Twin primes are pairs of prime numbers that differ by 2. In other words, if p and $p + 2$ are both prime numbers, then they form a twin prime pair.

Now, let's consider a number n that is between two twin primes, p and $p + 2$, where n is greater than p but less than $p + 2$. In other words, $p < n < p + 2$????.

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To prove that n is divisible by 6, we can show that n is divisible by both 2 and 3, which are the prime factors of 6.

Divisibility by 2: Since p and $p + 2$ are twin primes, one of them must be an odd prime. (???)

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If p is an odd prime, then $p+2$ is an even number. ????. Thus, $p+2$ is divisible by 2. Since n lies between p and $p+2$, it cannot be divisible by 2 since it is not equal to $p+2$. Therefore, n must be an odd number. ????

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Divisibility by 3: Consider the remainders of dividing the numbers p, $p + 1$, and $p + 2$ by 3. There are only three possible remainders: 0, 1, or 2. Since p and $p + 2$ are prime numbers, they cannot have a remainder of 0 when divided by 3. Thus, either p or $p + 2$ must have a remainder of 1 or 2 when divided by 3. This means that one of the numbers p, $p + 1$, or $p + 2$ is divisible by 3.

Since n lies between p and $p+2$, it cannot be divisible by p or $p+2$ since it is not equal to them ????. Therefore, n must be divisible by $p+1$, which is between p and $p+2$, and is divisible by 3.

Thus, we have shown that a number n between two twin primes, p and $p+2$, is divisible by both 2 and 3, which implies that n is divisible by 6.

Therefore, a number between two twin primes is divisible by 6.