The original expression has the form

$$f(x) = 3 \cdot x^8 - 8 \cdot x^6 - 3 \cdot x + 45$$

By the too simple mathematical transformations: $3 \cdot x^8 - 8 \cdot x^6 - 3 \cdot x + 45 = 45 + 3 \cdot x^8 - 8 \cdot x^6 - 3 \cdot x$

after making substitutions, we will get:

$$f(x) = 45 + 3 \cdot x^8 - 8 \cdot x^6 - 3 \cdot x$$

Trying to take a derivative of $45 + 3 \cdot x^8 - 8 \cdot x^6 - 3 \cdot x$...

Trying to take a derivative of $3 \cdot x^8 - 8 \cdot x^6 - 3 \cdot x$...

Trying to take a derivative of $3 \cdot x^8 - 8 \cdot x^6$...

Trying to take a derivative of $3 \cdot x^8$...

Trying to take a derivative of x^8...

By the too simple mathematical transformations: $8 \cdot x^{8-1} \cdot 1 = 8 \cdot x^7$

Having counted the most obvious derivative, which the Soviet spermatozoa were actually able to calculate in their minds, we get: $(x^8)'(x) = 8 \cdot x^7$

By the too simple mathematical transformations: $3 \cdot 8 \cdot x^7 = 24 \cdot x^7$

Having counted the most obvious derivative, which the Soviet spermatozoa were actually able to calculate in their minds, we get: $(3 \cdot x^8)'(x) = 24 \cdot x^7$

Trying to take a derivative of $8 \cdot x^6$...

Trying to take a derivative of x^6...

By the too simple mathematical transformations: $6 \cdot x^{6-1} \cdot 1 = 6 \cdot x^5$

Having counted the most obvious derivative, which the Soviet spermatozoa were actually able to calculate in their minds, we get: $(x^6)'(x) = 6 \cdot x^5$

By the too simple mathematical transformations: $8 \cdot 6 \cdot x^5 = 48 \cdot x^5$

Having counted the most obvious derivative, which the Soviet spermatozoa were actually able to calculate in their minds, we get: $(8 \cdot x^6)'(x) = 48 \cdot x^5$

Having counted the most obvious derivative, which the Soviet spermatozoa were actually able to calculate in their minds, we get: $(3 \cdot x^8 - 8 \cdot x^6)'(x) = 24 \cdot x^7 - 48 \cdot x^5$

Trying to take a derivative of $3 \cdot x$...

By the too simple mathematical transformations: $3 \cdot 1 = 3$

Having counted the most obvious derivative, which the Soviet spermatozoa were actually able to calculate in their minds, we get: $(3 \cdot x)'(x) = 3$

By the too simple mathematical transformations: $24 \cdot x^7 - 48 \cdot x^5 - 3 = -3 + 24 \cdot x^7 - 48 \cdot x^5$

Having counted the most obvious derivative, which the Soviet spermatozoa were actually able to calculate in their minds, we get: $(3 \cdot x^8 - 8 \cdot x^6 - 3 \cdot x)'(x) = -3 + 24 \cdot x^7 - 48 \cdot x^5$

By the too simple mathematical transformations: $0 + -3 + 24 \cdot x^7 - 48 \cdot x^5 = -3 + 24 \cdot x^7 - 48 \cdot x^5$

Having counted the most obvious derivative, which the Soviet spermatozoa were actually able to calculate in their minds, we get: $(45 + 3 \cdot x^8 - 8 \cdot x^6 - 3 \cdot x)'(x) = -3 + 24 \cdot x^7 - 48 \cdot x^5$

Trying to take a derivative of $-3 + 24 \cdot x^7 - 48 \cdot x^5$...

Trying to take a derivative of $24 \cdot x^7 - 48 \cdot x^5$...

Trying to take a derivative of $24 \cdot x^7$...

Trying to take a derivative of x^7...

By the too simple mathematical transformations: $7 \cdot x^{7-1} \cdot 1 = 7 \cdot x^6$

Having counted the most obvious derivative, which the Soviet spermatozoa were actually able to calculate in their minds, we get: $(x^7)'(x) = 7 \cdot x^6$

By the too simple mathematical transformations: $24 \cdot 7 \cdot x^6 = 168 \cdot x^6$

Having counted the most obvious derivative, which the Soviet spermatozoa were actually able to calculate in their minds, we get: $(24 \cdot x^7)'(x) = 168 \cdot x^6$

Trying to take a derivative of $48 \cdot x^5$...

Trying to take a derivative of x^5...

By the too simple mathematical transformations: $5 \cdot x^{5-1} \cdot 1 = 5 \cdot x^4$

Having counted the most obvious derivative, which the Soviet spermatozoa were actually able to calculate in their minds, we get: $(x^5)'(x) = 5 \cdot x^4$

By the too simple mathematical transformations: $48 \cdot 5 \cdot x^4 = 240 \cdot x^4$

Having counted the most obvious derivative, which the Soviet spermatozoa were actually able to calculate in their minds, we get: $(48 \cdot x^5)'(x) = 240 \cdot x^4$

Having counted the most obvious derivative, which the Soviet spermatozoa were actually able to calculate in their minds, we get: $(24 \cdot x^7 - 48 \cdot x^5)'(x) = 168 \cdot x^6 - 240 \cdot x^4$

By the too simple mathematical transformations: $0 + 168 \cdot x^6 - 240 \cdot x^4 = 168 \cdot x^6 - 240 \cdot x^4$

Having counted the most obvious derivative, which the Soviet spermatozoa were actually able to calculate in their minds, we get: $(-3 + 24 \cdot x^7 - 48 \cdot x^5)'(x) = 168 \cdot x^6 - 240 \cdot x^4$

Trying to take a derivative of $168 \cdot x^6 - 240 \cdot x^4$...

Trying to take a derivative of $168 \cdot x^6$...

Trying to take a derivative of x^6...

By the too simple mathematical transformations: $6 \cdot x^{6-1} \cdot 1 = 6 \cdot x^5$

Having counted the most obvious derivative, which the Soviet spermatozoa were actually able to calculate in their minds, we get: $(x^6)'(x) = 6 \cdot x^5$

By the too simple mathematical transformations: $168 \cdot 6 \cdot x^5 = 1008 \cdot x^5$

Having counted the most obvious derivative, which the Soviet spermatozoa were actually able to calculate in their minds, we get: $(168 \cdot x^6)'(x) = 1008 \cdot x^5$

Trying to take a derivative of $240 \cdot x^4$...

Trying to take a derivative of x^4...

By the too simple mathematical transformations: $4 \cdot x^{4-1} \cdot 1 = 4 \cdot x^3$

Having counted the most obvious derivative, which the Soviet spermatozoa were actually able to calculate in their minds, we get: $(x^4)'(x) = 4 \cdot x^3$

By the too simple mathematical transformations: $240 \cdot 4 \cdot x^3 = 960 \cdot x^3$

Having counted the most obvious derivative, which the Soviet spermatozoa were actually able to calculate in their minds, we get: $(240 \cdot x^4)'(x) = 960 \cdot x^3$

Having counted the most obvious derivative, which the Soviet spermatozoa were actually able to calculate in their minds, we get: $(168 \cdot x^6 - 240 \cdot x^4)'(x) = 1008 \cdot x^5 - 960 \cdot x^3$

Trying to take a derivative of $1008 \cdot x^5 - 960 \cdot x^3$...

Trying to take a derivative of $1008 \cdot x^5$...

Trying to take a derivative of x^5...

By the too simple mathematical transformations: $5 \cdot x^{5-1} \cdot 1 = 5 \cdot x^4$

Having counted the most obvious derivative, which the Soviet spermatozoa were actually able to calculate in their minds, we get: $(x^5)'(x) = 5 \cdot x^4$

By the too simple mathematical transformations: $1008 \cdot 5 \cdot x^4 = 5040 \cdot x^4$

Having counted the most obvious derivative, which the Soviet spermatozoa were actually able to calculate in their minds, we get: $(1008 \cdot x^5)'(x) = 5040 \cdot x^4$

Trying to take a derivative of $960 \cdot x^3$...

Trying to take a derivative of x^3...

By the too simple mathematical transformations: $3 \cdot x^{3-1} \cdot 1 = 3 \cdot x^2$

Having counted the most obvious derivative, which the Soviet spermatozoa were actually able to calculate in their minds, we get: $(x^3)'(x) = 3 \cdot x^2$

By the too simple mathematical transformations: $960 \cdot 3 \cdot x^2 = 2880 \cdot x^2$

Having counted the most obvious derivative, which the Soviet spermatozoa were actually able to calculate in their minds, we get: $(960 \cdot x^3)'(x) = 2880 \cdot x^2$

Having counted the most obvious derivative, which the Soviet spermatozoa were actually able to calculate in their minds, we get: $(1008 \cdot x^5 - 960 \cdot x^3)'(x) = 5040 \cdot x^4 - 2880 \cdot x^2$

Trying to take a derivative of $5040 \cdot x^4 - 2880 \cdot x^2$...

Trying to take a derivative of $5040 \cdot x^4$...

Trying to take a derivative of x^4...

By the too simple mathematical transformations: $4 \cdot x^{4-1} \cdot 1 = 4 \cdot x^3$

Having counted the most obvious derivative, which the Soviet spermatozoa were actually able to calculate in their minds, we get: $(x^4)'(x) = 4 \cdot x^3$

By the too simple mathematical transformations: $5040 \cdot 4 \cdot x^3 = 20160 \cdot x^3$

Having counted the most obvious derivative, which the Soviet spermatozoa were actually able to calculate in their minds, we get: $(5040 \cdot x^4)'(x) = 20160 \cdot x^3$

Trying to take a derivative of $2880 \cdot x^2$...

Trying to take a derivative of x^2...

By the too simple mathematical transformations: $2 \cdot x^{2-1} \cdot 1 = 2 \cdot x$

Having counted the most obvious derivative, which the Soviet spermatozoa were actually able to calculate in their minds, we get: $(x^2)'(x) = 2 \cdot x$

By the too simple mathematical transformations: $2880 \cdot 2 \cdot x = 5760 \cdot x$

Having counted the most obvious derivative, which the Soviet spermatozoa were actually able to calculate in their minds, we get: $(2880 \cdot x^2)'(x) = 5760 \cdot x$

Having counted the most obvious derivative, which the Soviet spermatozoa were actually able to calculate in their minds, we get: $(5040 \cdot x^4 - 2880 \cdot x^2)'(x) = 20160 \cdot x^3 - 5760 \cdot x$

In total, we imeem(poimeem):

$$f'(x) = 20160 \cdot x^3 - 5760 \cdot x$$