2022Call5.

(1) **Q1**

CLOZE | 0.10 penalty

If not specified otherwise, fill in the blanks with **integers (possibly 0 or negative)**. A fraction should be **reduced** (for example, $\frac{1}{2}$ is accepted but not $\frac{2}{4}$), and if it is negative and the answer boxes (such as $\frac{\boxed{a}}{\boxed{b}}$) have ambiguity, the negative sign should be put on the numerator (for example $\frac{-1}{2}$ is accepted but $\frac{1}{-2}$ is not). $\log x = \log_e x$, not $\log_{10} x$.

Complete the formulae.

$$\cos x = \boxed{a} + \boxed{b}x + \frac{\boxed{c}}{\boxed{d}}x^2 + \boxed{e}x^3 + \frac{\boxed{f}}{\boxed{g}}x^4 + o(x^4) \text{ as } x \to 0.$$

a:

NUMERICAL | 1 point

1 ✓

b:

NUMERICAL | 1 point

0 ✓

c:

NUMERICAL | 1 point

-1 ✓

d:

NUMERICAL | 1 point

2 ✓

e:

NUMERICAL | 1 point

0 ✓

f:

NUMERICAL | 1 point

1 ✓

g:

NUMERICAL | 2 points

24 ✓

$$x^2\sqrt{1+3x} = \boxed{\text{h}} + \boxed{\text{i}}x + \boxed{\text{j}}x^2 + \frac{\boxed{\text{k}}}{\boxed{\text{l}}}x^3 + \frac{\boxed{\text{m}}}{\boxed{\text{n}}}x^4 + o(x^4) \text{ as } x \to 0.$$

h:

NUMERICAL | 1 point

0 ✓	

i:

NUMERICAL | 1 point

0 ✓	

j:

NUMERICAL | 1 point

1 ✓	

k:

NUMERICAL | 1 point

3 ✓	

l:

NUMERICAL | 1 point

2 ✓	

m:

NUMERICAL | 1 point

-9 ✓	

n:

NUMERICAL | 2 points

8 ✓	

$$(\log(1+x^2))^2 = \boxed{\text{o}} + \boxed{\text{p}}x + \boxed{\text{q}}x^2 + \boxed{\text{r}}x^3 + \boxed{\text{s}}x^4 + o(x^4) \text{ as } x \to 0.$$

o:

NUMERICAL | 1 point

0 ✓	

p:

NUMERICAL | 1 point

0 ✓	

q:

NUMERICAL | 1 point

0 ✓	

r:

NUMERICAL | 1 point

0 ✓	

s:

NUMERICAL | 4 points

1 ✓	

For various $\alpha \in \mathbb{R}$, study the limit:

$$\lim_{x\to 0} \frac{2\cos x - 2 + x^2\sqrt{1+3x} + \alpha x^3}{(\log(1+x^2))^2}.$$

This limit converges for $\alpha = \frac{\boxed{t}}{\boxed{u}}$.

t:

NUMERICAL | 4 points

-3 ✓	

u:

NUMERICAL | 4 points

2 ✓	

In that case, the limit is $\frac{\boxed{v}}{\boxed{w}}$.

v:

NUMERICAL | 8 points

-25 ✓	

w:

NUMERICAL | 8 points

24 ✓	

(2) **Q1**

CLOZE | 0.10 penalty

If not specified otherwise, fill in the blanks with **integers (possibly 0 or negative)**. A fraction should be **reduced** (for example, $\frac{1}{2}$ is accepted but not $\frac{2}{4}$), and if it is negative and the answer boxes (such as $\frac{\boxed{a}}{\boxed{b}}$) have ambiguity, the negative sign should be put on the numerator (for example $\frac{-1}{2}$ is accepted but $\frac{1}{-2}$ is not). $\log x = \log_e x$, not $\log_{10} x$.

Complete the formulae.

$$\cos x = \boxed{a} + \boxed{b}x + \frac{\boxed{c}}{\boxed{d}}x^2 + \boxed{e}x^3 + \frac{\boxed{f}}{\boxed{g}}x^4 + o(x^4) \text{ as } x \to 0.$$

a:
NUMERICAL 1 point

1 ✓	

b:
NUMERICAL 1 point

0 ✓	

c:
NUMERICAL 1 point

-1 ✓	

d:
NUMERICAL 1 point

2 ✓	

e:
NUMERICAL 1 point

0 ✓	

f:
NUMERICAL 1 point

1 ✓	

g:
NUMERICAL 2 points

24 ✓	

$$x^2\sqrt{1+x} = \boxed{\text{h}} + \boxed{\text{i}}x + \boxed{\text{j}}x^2 + \frac{\boxed{\text{k}}}{\boxed{\text{l}}}x^3 + \frac{\boxed{\text{m}}}{\boxed{\text{n}}}x^4 + o(x^4) \text{ as } x \to 0.$$

h:
NUMERICAL 1 point

0 ✓	

i:
NUMERICAL 1 point

0 ✓	

j:
NUMERICAL 1 point

1 ✓	

k:
NUMERICAL 1 point

1 ✓	

l:

NUMERICAL 1 point

2 ✓	

m:

NUMERICAL 1 point

-1 ✓	

n:

NUMERICAL 2 points

8 ✓	

$$(\log(1+2x^2))^2 = \boxed{\text{o}} + \boxed{\text{p}}x + \boxed{\text{q}}x^2 + \boxed{\text{r}}x^3 + \boxed{\text{s}}x^4 + o(x^4) \text{ as } x \to 0.$$

o:

NUMERICAL 1 point

0 ✓	

p:

NUMERICAL 1 point

0 ✓	

q:

NUMERICAL 1 point

0 ✓	

r:

NUMERICAL 1 point

0 ✓	

s:

NUMERICAL 4 points

4 ✓	

For various $\alpha \in \mathbb{R}$, study the limit:

$$\lim_{x\to 0} \frac{2\cos x - 2 + x^2\sqrt{1+x} + \alpha x^3}{(\log(1+2x^2))^2}.$$

This limit converges for $\alpha = \frac{\boxed{\text{t}}}{\boxed{\text{u}}}$.

t:

NUMERICAL 4 points

-1 ✓	

u:

NUMERICAL | 4 points

2 ✓	

In that case, the limit is $\frac{\boxed{v}}{\boxed{w}}$.

$\boxed{v}$:

NUMERICAL | 8 points

-1 ✓	

$\boxed{w}$:

NUMERICAL | 8 points

96 ✓	

(3) **Q2**

CLOZE | 0.10 penalty

If not specified otherwise, fill in the blanks with **integers (possibly 0 or negative)**. A fraction should be **reduced** (for example, $\frac{1}{2}$ is accepted but not $\frac{2}{4}$), and if it is negative and the answer boxes (such as $\frac{\boxed{a}}{\boxed{b}}$) have ambiguity, the negative sign should be put on the numerator (for example $\frac{-1}{2}$ is accepted but $\frac{1}{-2}$ is not). $\log x = \log_e x$, not $\log_{10} x$.

Let us study the following series $\sum_{n=0}^{\infty} \frac{2^n-1}{n!}(x+1)^{2n}$, with various x.

This series makes sense also for $x \in \mathbb{C}$. For $x = i$, calculate the partial sum $\sum_{n=0}^{2} \frac{2^n-1}{n!}(x+1)^{2n} = \boxed{a} + \boxed{b} i$.

$\boxed{a}$:

NUMERICAL | 1 point

-6 ✓	

$\boxed{b}$:

NUMERICAL | 1 point

2 ✓	

In order to discuss the convergence using the ratio test for $x \in \mathbb{R}$, we put $a_n = \frac{2^n-1}{n!}|x+1|^{2n}$. Complete the formula.

$$\lim_{n\to\infty} \frac{a_{n+1}}{a_n} = \boxed{c}$$

$\boxed{c}$:

NUMERICAL | 2 points

0 ✓	

Therefore, by the ratio test, the series converges absolutely for

MULTI | 4 points | Single

- all x. ✓
- $-3 < x < -1$.
- $-3 < x < 1$.
- $-\frac{5}{4} < x < -\frac{3}{4}$.
- $-\frac{3}{2} < x < -\frac{1}{2}$.
- $\frac{1}{2} < x < \frac{3}{2}$.
- $\frac{3}{4} < x < \frac{5}{4}$.
- $-1 < x < 1$.
- $-1 < x < 3$.
- $x = 0$.
- $1 < x < 3$.

For the case $x = -\frac{3}{2}$, the series

MULTI | 2 points | Single

- converges absolutely. ✓
- converges but not absolutely.
- diverges.

Calculate the infinite sum.

$$\sum_{n=0}^{\infty} \left(\frac{3}{5}\right)^n = \frac{\boxed{\text{d}}}{\boxed{\text{e}}}.$$

$\boxed{\text{a}}$:

NUMERICAL | 1 point

5 ✓	

$\boxed{\text{b}}$:

NUMERICAL | 1 point

2 ✓	

(4) **Q2**

CLOZE | 0.10 penalty

If not specified otherwise, fill in the blanks with **integers (possibly 0 or negative)**. A fraction should be **reduced** (for example, $\frac{1}{2}$ is accepted but not $\frac{2}{4}$), and if it is negative and the answer boxes (such as $\frac{\boxed{\text{a}}}{\boxed{\text{b}}}$) have ambiguity, the negative sign should be put on the numerator (for example $\frac{-1}{2}$ is accepted but $\frac{1}{-2}$ is not). $\log x = \log_e x$, not $\log_{10} x$.

Let us study the following series $\sum_{n=0}^{\infty} \frac{2^n-1}{n!}(x+1)^{2n}$, with various x.

This series makes sense also for $x \in \mathbb{C}$. For $x = -i$, calculate the partial sum $\sum_{n=0}^{2} \frac{2^n-1}{n!}(x+1)^{2n} = \boxed{\text{a}} + \boxed{\text{b}}\, i$.

a :

NUMERICAL 1 point

-6 ✓	

b :

NUMERICAL 1 point

-2 ✓	

In order to discuss the convergence using the ratio test for $x \in \mathbb{R}$, we put $a_n = \frac{2^n-1}{n!}|x+1|^{2n}$. Complete the formula.

$$\lim_{n\to\infty} \frac{a_{n+1}}{a_n} = \boxed{\text{c}}$$

c :

NUMERICAL 2 points

0 ✓	

Therefore, by the ratio test, the series converges absolutely for

MULTI 4 points Single

- all x. ✓
- $-3 < x < -1$.
- $-3 < x < 1$.
- $-\frac{5}{4} < x < -\frac{3}{4}$.
- $-\frac{3}{2} < x < -\frac{1}{2}$.
- $\frac{1}{2} < x < \frac{3}{2}$.
- $\frac{3}{4} < x < \frac{5}{4}$.
- $-1 < x < 1$.
- $-1 < x < 3$.
- $x = 0$.
- $1 < x < 3$.

For the case $x = \frac{3}{2}$, the series

MULTI 2 points Single

- converges absolutely. ✓
- converges but not absolutely.
- diverges.

Calculate the infinite sum.

$$\sum_{n=0}^{\infty} \left(-\frac{1}{3}\right)^n = \frac{\boxed{\text{d}}}{\boxed{\text{e}}}.$$

a :

NUMERICAL 1 point

3 ✓	

b:

NUMERICAL | 1 point

4 ✓	

(5) **Q3**

CLOZE | 0.10 penalty

If not specified otherwise, fill in the blanks with **integers (possibly 0 or negative)**. A fraction should be **reduced** (for example, $\frac{1}{2}$ is accepted but not $\frac{2}{4}$), and if it is negative and the answer boxes (such as $\frac{\boxed{a}}{\boxed{b}}$) have ambiguity, the negative sign should be put on the numerator (for example $\frac{-1}{2}$ is accepted but $\frac{1}{-2}$ is not). $\log x = \log_e x$, not $\log_{10} x$.

Let us consider the following function

$$f(x) = \frac{(x-1)^3}{x(x+1)}.$$

The function $f(x)$ is not defined on the whole real line $\mathbb{R}$. Choose all the points that are **not** in the natural domain of $f(x)$.

MULTI | 4 points | Single

- -2 (−100%)
- -1 ✓
- $-\frac{1}{2}$ (−100%)
- 0 ✓
- $\frac{1}{2}$ (−100%)
- 1 (−100%)
- 2 (−100%)

Choose all asymptotes of $f(x)$.

MULTI | 4 points | Single

- $y = -1$ (−100%)
- $y = -\frac{1}{2}$ (−100%)
- $y = 0$ (−100%)
- $y = \frac{1}{2}$ (−100%)
- $y = 2$ (−100%)
- $x = -2$ (−100%)
- $x = -1$ ✓
- $x = -\frac{1}{2}$ (−100%)
- $x = 0$ ✓
- $x = \frac{1}{2}$ (−100%)
- $x = 1$ (−100%)
- $x = 2$ (−100%)

- $y = x - 4$ ✓
- $y = x$ (−100%)
- $y = x + 4$ (−100%)

One has

$$f'(2) = \frac{\boxed{\text{a}}}{\boxed{\text{b}}}.$$

a:

NUMERICAL | 4 points

13 ✓	

b:

NUMERICAL | 4 points

36 ✓	

The function $f(x)$ has c stationary point(s) in the domain

c:

NUMERICAL | 4 points

3 ✓	

Choose the behaviour of $f(x)$ in the interval $[3, 4]$.

MULTI | 4 points | Single

- monotonically decreasing
- monotonically increasing ✓
- neither decreasing nor increasing

(6) **Q3**

CLOZE | 0.10 penalty

If not specified otherwise, fill in the blanks with **integers (possibly** 0 **or negative)**. A fraction should be **reduced** (for example, $\frac{1}{2}$ is accepted but not $\frac{2}{4}$), and if it is negative and the answer boxes (such as $\frac{\boxed{\text{a}}}{\boxed{\text{b}}}$) have ambiguity, the negative sign should be put on the numerator (for example $\frac{-1}{2}$ is accepted but $\frac{1}{-2}$ is not). $\log x = \log_e x$, not $\log_{10} x$.

Let us consider the following function

$$f(x) = \frac{(x+1)^3}{x(x-1)}.$$

The function $f(x)$ is not defined on the whole real line $\mathbb{R}$. Choose all the points that are **not** in the natural domain of $f(x)$.

MULTI | 4 points | Single

- −2 (−100%)
- −1 (−100%)

- $-\frac{1}{2}$ (−100%)
- 0 ✓
- $\frac{1}{2}$ (−100%)
- 1 ✓
- 2 (−100%)

Choose all asymptotes of $f(x)$.

MULTI | 4 points | Single

- $y = -1$ (−100%)
- $y = -\frac{1}{2}$ (−100%)
- $y = 0$ (−100%)
- $y = \frac{1}{2}$ (−100%)
- $y = 2$ (−100%)
- $x = -2$ (−100%)
- $x = -1$ (−100%)
- $x = -\frac{1}{2}$ (−100%)
- $x = 0$ ✓
- $x = \frac{1}{2}$ (−100%)
- $x = 1$ ✓
- $x = 2$ (−100%)
- $y = x - 4$ (−100%)
- $y = x$ (−100%)
- $y = x + 4$ ✓

One has

$$f'(2) = \frac{\boxed{\text{a}}}{\boxed{\text{b}}}.$$

$\boxed{\text{a}}$:

NUMERICAL | 4 points

-27 ✓	

$\boxed{\text{b}}$:

NUMERICAL | 4 points

4 ✓	

The function $f(x)$ has $\boxed{\text{c}}$ stationary point(s) in the domain

$\boxed{\text{c}}$:

NUMERICAL | 4 points

3 ✓	

Choose the behaviour of $f(x)$ in the interval $[3, 4]$.

MULTI | 4 points | Single

- monotonically decreasing
- monotonically increasing
- neither decreasing nor increasing ✓

(7) **Q4**

CLOZE | 0.10 penalty

If not specified otherwise, fill in the blanks with **integers (possibly 0 or negative)**. A fraction should be **reduced** (for example, $\frac{1}{2}$ is accepted but not $\frac{2}{4}$), and if it is negative and the answer boxes (such as $\frac{\boxed{a}}{\boxed{b}}$) have ambiguity, the negative sign should be put on the numerator (for example $\frac{-1}{2}$ is accepted but $\frac{1}{-2}$ is not). $\log x = \log_e x$, not $\log_{10} x$.

Let us calculate the following integral.

$$\int_1^2 \frac{\log x}{x^2} dx.$$

By noting that we can find easily a primitive of $\frac{1}{x^2}$, we can apply integration by parts. Fill in the blanks.

$$\int_1^2 \frac{\log x}{x^2} dx = [\boxed{a}]_1^2 - \int_1^2 \boxed{b} dx.$$

Choose correct functions.

$\boxed{a}$:

MULTI | 4 points | Single

- $-\log x$
- $x \log x - 1$
- $-\log x/x$ ✓
- $\log x/x^3$
- $1/x$
- $-1/x^2$

$\boxed{b}$:

MULTI | 4 points | Single

- $-\log x$
- $x \log x - 1$
- $-\log x/x$
- $\log x/x^3$
- $1/x$
- $-1/x^2$ ✓

Continuing, we get

$$\int_1^2 \frac{\log x}{x^2} dx = \frac{\boxed{c}}{\boxed{d}} + \frac{\boxed{e} \log \boxed{f}}{\boxed{g}}.$$

$\boxed{c}$:

NUMERICAL | 3 points

1 ✓	

d:

NUMERICAL | 3 points

2 ✓	

e:

NUMERICAL | 3 points

-1 ✓	

f:

NUMERICAL | 4 points

2 ✓	

g:

NUMERICAL | 3 points

2 ✓	

(8) **Q4**

CLOZE | 0.10 penalty

If not specified otherwise, fill in the blanks with **integers (possibly** 0 **or negative)**. A fraction should be **reduced** (for example, $\frac{1}{2}$ is accepted but not $\frac{2}{4}$), and if it is negative and the answer boxes (such as $\frac{\boxed{a}}{\boxed{b}}$) have ambiguity, the negative sign should be put on the numerator (for example $\frac{-1}{2}$ is accepted but $\frac{1}{-2}$ is not). $\log x = \log_e x$, not $\log_{10} x$.

Let us calculate the following integral.

$$\int_1^3 \frac{\log x}{x^2} dx.$$

By noting that we can find easily a primitive of $\frac{1}{x^2}$, we can apply integration by parts. Fill in the blanks.

$$\int_1^3 \frac{\log x}{x^2} dx = [\![\boxed{a}]\!]_1^3 - \int_1^3 \boxed{b} dx.$$

Choose correct functions.

a:

MULTI | 4 points | Single

- $-\log x$
- $x \log x - 1$
- $-\log x/x$ ✓
- $\log x/x^3$
- $1/x$
- $-1/x^2$

[b]:

[MULTI] [4 points] [Single]

- $-\log x$
- $x \log x - 1$
- $-\log x/x$
- $\log x/x^3$
- $1/x$
- $-1/x^2$ ✓

Continuing, we get

$$\int_1^3 \frac{\log x}{x^2} dx = \frac{\boxed{c}}{\boxed{d}} + \frac{\boxed{e} \log \boxed{f}}{\boxed{g}}.$$

[c]:

[NUMERICAL] [3 points]

2 ✓	

[d]:

[NUMERICAL] [3 points]

3 ✓	

[e]:

[NUMERICAL] [3 points]

-1 ✓	

[f]:

[NUMERICAL] [4 points]

3 ✓	

[g]:

[NUMERICAL] [3 points]

3 ✓	

(9) **Q5**

[CLOZE] [0.10 penalty]

If not specified otherwise, fill in the blanks with **integers (possibly 0 or negative)**. A fraction should be **reduced** (for example, $\frac{1}{2}$ is accepted but not $\frac{2}{4}$), and if it is negative and the answer boxes (such as $\frac{\boxed{a}}{\boxed{b}}$) have ambiguity, the negative sign should be put on the numerator (for example $\frac{-1}{2}$ is accepted but $\frac{1}{-2}$ is not). $\log x = \log_e x$, not $\log_{10} x$.

Let us calculate the following improper integral based on definition.

$$\int_0^\infty x\exp(\alpha x^2)dx$$

.

We split the integral into two parts: $\int_0^1 x\exp(\alpha x^2)dx + \int_1^\infty x\exp(\alpha x^2)dx$

$\int_0^1 x\exp(\alpha x^2)dx$ converges for the following α.

MULTI | 1 point | Single

- $\alpha > -\frac{1}{4}$
- $\alpha < -\frac{1}{4}$
- $\alpha > -1$
- $\alpha < -1$
- $\alpha > 0$
- $\alpha < 0$
- $\alpha > 1$
- $\alpha < 1$
- $\alpha > \frac{1}{4}$
- $\alpha < \frac{1}{4}$
- all $\alpha \in \mathbb{R}$ ✓

$\int_1^\infty x\exp(\alpha x^2)dx$ converges for the following α.

MULTI | 1 point | Single

- $\alpha > -\frac{1}{4}$
- $\alpha < -\frac{1}{4}$
- $\alpha > -1$
- $\alpha < -1$
- $\alpha > 0$
- $\alpha < 0$ ✓
- $\alpha > 1$
- $\alpha < 1$
- $\alpha > \frac{1}{4}$
- $\alpha < \frac{1}{4}$
- all $\alpha \in \mathbb{R}$

Take $\alpha = -5$. In this case, $\int_0^\infty x\exp(\alpha x^2)dx = \frac{\boxed{a}}{\boxed{b}}$ (if the integral is divergent, write $\frac{1}{0}$).

a:

NUMERICAL | 1 point

1 ✓	

b:

NUMERICAL | 1 point

10 ✓	

Choose all improper integrals that are convergent.

MULTI | 2 points | Single

- $\int_0^\infty \exp(-x)/x dx$ (−100%)
- $\int_0^\infty \exp(x)/x dx$ (−100%)
- $\int_1^\infty \exp(-x)/x^2 dx$ ✓
- $\int_1^\infty \exp(x)/x^2 dx$ (−100%)
- $\int_0^\infty \log x/x dx$ (−100%)
- $\int_0^\infty \log x/x^2 dx$ (−100%)
- $\int_1^\infty \log x/x dx$ (−100%)
- $\int_1^\infty \log x/x^2 dx$ ✓

(10) **Q5**

CLOZE | 0.10 penalty

If not specified otherwise, fill in the blanks with **integers (possibly** 0 **or negative)**. A fraction should be **reduced** (for example, $\frac{1}{2}$ is accepted but not $\frac{2}{4}$), and if it is negative and the answer boxes (such as $\frac{\boxed{a}}{\boxed{b}}$) have ambiguity, the negative sign should be put on the numerator (for example $\frac{-1}{2}$ is accepted but $\frac{1}{-2}$ is not). $\log x = \log_e x$, not $\log_{10} x$.

Let us calculate the following improper integral based on definition.

$$\int_0^\infty x \exp(\alpha x^2) dx$$

.

We split the integral into two parts: $\int_0^1 x \exp(\alpha x^2) dx + \int_1^\infty x \exp(\alpha x^2) dx$

$\int_1^\infty x \exp(\alpha x^2) dx$ converges for the following α.

MULTI | 1 point | Single

- $\alpha > -\frac{1}{4}$
- $\alpha < -\frac{1}{4}$
- $\alpha > -1$
- $\alpha < -1$
- $\alpha > 0$
- $\alpha < 0$ ✓
- $\alpha > 1$
- $\alpha < 1$
- $\alpha > \frac{1}{4}$
- $\alpha < \frac{1}{4}$
- all $\alpha \in \mathbb{R}$

$\int_0^1 x \exp(\alpha x^2) dx$ converges for the following α.

MULTI | 1 point | Single

- $\alpha > -\frac{1}{4}$
- $\alpha < -\frac{1}{4}$
- $\alpha > -1$
- $\alpha < -1$
- $\alpha > 0$
- $\alpha < 0$
- $\alpha > 1$
- $\alpha < 1$
- $\alpha > \frac{1}{4}$
- $\alpha < \frac{1}{4}$
- all $\alpha \in \mathbb{R}$ ✓

Take $\alpha = -4$. In this case, $\int_0^\infty x \exp(\alpha x^2) dx = \frac{\boxed{a}}{\boxed{b}}$ (if the integral is divergent, write $\frac{1}{0}$).

a:

NUMERICAL | 1 point

1 ✓	

b:

NUMERICAL | 1 point

8 ✓	

Choose all improper integrals that are convergent.

MULTI | 2 points | Single

- $\int_0^\infty \log x/x dx$ (−100%)
- $\int_0^\infty \log x/x^2 dx$ (−100%)
- $\int_1^\infty \log x/x dx$ (−100%)
- $\int_1^\infty \log x/x^2 dx$ ✓
- $\int_0^\infty \exp(-x)/x dx$ (−100%)
- $\int_0^\infty \exp(x)/x dx$ (−100%)
- $\int_1^\infty \exp(-x)/x^2 dx$ ✓
- $\int_1^\infty \exp(x)/x^2 dx$ (−100%)

Total of marks: 228