```
pomoci vhodne substituce vypoctete integral
```

```
`2*Int((x^2+1)*(x^2+1+2*arctan(x^2+1)*x^4+4*arctan(x^2+1)*x^2+4*arctan(x^2+1))
*x/(x^4+2*x^2+2),x) = (x^2+1)^2*arctan(x^2+1)`
```

$$\Bigg[2 \int (x^2+1)$$

$$(x^2 + 1 + 2\arctan(x^2+1)\,x^4 + 4\arctan(x^2+1)\,x^2 + 4\arctan(x^2+1))\,x$$

$$\Big/ (x^4 + 2x^2 + 2)\,dx = (x^2+1)^2 \arctan(x^2+1),\ substituce:,\ t = x^2 + 1,$$

$$\int \frac{t^2}{t^2+1} + 2\,t\arctan(t)\,dt = \arctan(t)\,t^2 \Bigg]$$

```
pomoci vhodne substituce vypoctete integral
 `Int((cos(ln(x))*ln(x)+sin(ln(x)))/x,x) = sin(ln(x))*ln(x)`
```

$$\Bigg[\int \frac{\cos(\ln(x))\ln(x) + \sin(\ln(x))}{x}\,dx = \sin(\ln(x))\ln(x),\ substituce:,$$

$$t = \ln(x),\ \int \cos(t)\,t + \sin(t)\,dt = \sin(t)\,t \Bigg]$$

```
pomoci vhodne substituce vypoctete integral
 `ln(2)*Int(2^sin(x)*cos(x),x) = 2^sin(x)`
```

$$\left[\ln(2) \int 2^{\sin(x)} \cos(x)\,dx = 2^{\sin(x)},\ substituce:,\ t = \sin(x),\ \int 2^t \ln(2)\,dt = 2^t \right]$$

```
pomoci vhodne substituce vypoctete integral
 `-2*Int((-x^2-
1+2*arctan(x^2+1)*x^4+4*arctan(x^2+1)*x^2+4*arctan(x^2+1))*x/(x^4+2*x^2+2)/(x^
2+1)^3,x) = arctan(x^2+1)/(x^2+1)^2`
```

$$\left[-2 \int \frac{(-x^2 - 1 + 2\arctan(x^2+1)\,x^4 + 4\arctan(x^2+1)\,x^2 + 4\arctan(x^2+1))}{(x^4 + 2x^2 + 2)(x^2+1)^3} \right.$$

$$dx = \frac{\arctan(x^2+1)}{(x^2+1)^2}, \; substituce:, \; t = x^2 + 1, \quad \left. \int \frac{1}{(t^2+1)\,t^2} - \frac{2\arctan(t)}{t^3}\,dt = \frac{\arctan(t)}{t^2} \right]$$

$$line :=$$

"PMMAT2|174933|Benda, Vladislav |zk|ESF M-EKT EKON [sem 2]

$$zadani\,pro, \text{"Benda, Vladislav   ",} 174933$$

```
pomoci vhodne substituce vypoctete integral
 `2*Int(cos(x^2-1)/sin(x^2-1)*x,x) = ln(sin((x-1)*(x+1)))`
```

$$\left[2 \int \frac{\cos(x^2-1)\,x}{\sin(x^2-1)}\,dx = \ln(\sin((x-1)(x+1))), \; substituce:, \; t = x^2 - 1, \right.$$

$$\left. \int \frac{\cos(t)}{\sin(t)}\,dt = \ln(\sin(t)) \right]$$

$$line := \text{"PMMAT2|172164|Beníèková, Petra |zk|ESF B-HPS FP [sem 2]}$$

$$zadani\,pro, \text{"Beníèková, Petra   ",} 172164$$

```
pomoci vhodne substituce vypoctete integral
 `2*Int(sin(x)*cos(x)/(2-2*cos(x)^2+cos(x)^4),x) = arctan(sin(x)^2)`
```

$$\left[2 \int \frac{\sin(x)\cos(x)}{2 - 2\cos(x)^2 + \cos(x)^4}\,dx = \arctan(\sin(x)^2), \; substituce:, \; t = \sin(x), \right.$$

$$\left. \int \frac{2t}{t^4+1}\,dt = \arctan(t^2) \right]$$

$$line := \text{"PMMAT2|174769|Blaha, Robert |zk|ESF M-HPS FP [sem 2]}$$

$$zadani\,pro, \text{"Blaha, Robert   ",} 174769$$

```
pomoci vhodne substituce vypoctete integral
 `Int((cos(sin(x))*sin(x)-sin(sin(x)))*cos(x)/sin(x)^2,x) =
sin(sin(x))/sin(x)`
```

$$\left[\int \frac{(\cos(\sin(x))\sin(x) - \sin(\sin(x)))\cos(x)}{\sin(x)^2}\,dx = \frac{\sin(\sin(x))}{\sin(x)}, \; substituce:, \right.$$

$$t = \sin(x), \; \left. \int \frac{\cos(t)}{t} - \frac{\sin(t)}{t^2}\,dt = \frac{\sin(t)}{t} \right]$$

$$line := \text{"PMMAT2|151092|Cífka, Michal |zk|ESF B-EKM POH [sem 2]}$$

$$zadani\,pro, \text{"Cífka, Michal   ",} 151092$$

pomoci vhodne substituce vypoctete integral

`2*Int((arctan(x^2+1)*x^4+2*arctan(x^2+1)*x^2+2*arctan(x^2+1)+x^2+1)*x/(x^4+2*x^2+2),x) = (x^2+1)*arctan(x^2+1)`

$$\left[\, 2 \int \frac{(\arctan(x^2+1)\, x^4 + 2\arctan(x^2+1)\, x^2 + 2\arctan(x^2+1) + x^2 + 1)\, x}{x^4 + 2\, x^2 + 2}\right.$$

$$dx = (x^2+1)\arctan(x^2+1),\ substituce:, t = x^2+1,$$

$$\left. \int \arctan(t) + \frac{t}{t^2+1}\, dt = t\, \arctan(t) \right]$$

$$line := \text{"PMMAT2|171784|Diani¹ka, Róbert \quad |zk|ESF B-HPS FP [sem 2]}$$

$$zadani\ pro, \text{"Diani¹ka, Róbert \quad ", } 171784$$

pomoci vhodne substituce vypoctete integral
`2*Int(1/sin(x)*cos(x),x) = 2*ln(sin(x))`

$$\left[\, 2 \int \frac{\cos(x)}{\sin(x)}\, dx = 2\ln(\sin(x)),\ substituce:, t = \sin(x),\ \int \frac{2}{t}\, dt = 2\ln(t) \right]$$

$$line := \text{"PMMAT2|136915|Dole¾el, Tomá¹ \quad |zk|ESF B-HPS NH [sem 4]}$$

$$zadani\ pro, \text{"Dole¾el, Tomá¹ \quad ", } 136915$$

pomoci vhodne substituce vypoctete integral
`2*Int(cos(x^2+1)*x,x) = sin(x^2+1)`

$$\left[\, 2 \int \cos(x^2+1)\, x\, dx = \sin(x^2+1),\ substituce:, t = x^2+1,\right.$$

$$\left. \int \cos(t)\, dt = \sin(t) \right]$$

$$line := \text{"PMMAT2|171845|Fajtová, Veronika \quad |zk|ESF B-HPS FP [sem 2]}$$

$$zadani\ pro, \text{"Fajtová, Veronika \quad ", } 171845$$

pomoci vhodne substituce vypoctete integral
`Int((cos(sin(x))*sin(x)-sin(sin(x)))*cos(x)/sin(x)^2,x) = sin(sin(x))/sin(x)`

$$\left[\, \int \frac{(\cos(\sin(x))\sin(x) - \sin(\sin(x)))\cos(x)}{\sin(x)^2}\, dx = \frac{\sin(\sin(x))}{\sin(x)},\ substituce:,\right.$$

$$\left. t = \sin(x),\ \int \frac{\cos(t)}{t} - \frac{\sin(t)}{t^2}\, dt = \frac{\sin(t)}{t} \right]$$

$$line := \text{"PMMAT2|172168|Ferèák, Ondrej \quad |zk|ESF B-HPS NH [sem 2]}$$

$$zadani\ pro, \text{"Ferèák, Ondrej \quad ", } 172168$$

pomoci vhodne substituce vypoctete integral
`Int(ln(x)*(ln(x)+2*arctan(ln(x))*ln(x)^2+2*arctan(ln(x)))/(ln(x)^2+1)/x,x) = arctan(ln(x))*ln(x)^2`

$$\left[\int \frac{\ln(x)\,(\ln(x) + 2\arctan(\ln(x))\,\ln(x)^2 + 2\arctan(\ln(x)))}{(\ln(x)^2 + 1)\,x}\,dx = \right.$$

$$\arctan(\ln(x))\,\ln(x)^2,\ \textit{substituce:},\ t = \ln(x),$$

$$\left. \int \frac{t^2}{t^2 + 1} + 2\,t\,\arctan(t)\,dt = \arctan(t)\,t^2 \right]$$

$line := $ "PMMAT2|172186|Florová, Zuzana |zk|ESF B-HPS RRS [sem 2]

$zadani\ pro$, "Florová, Zuzana   ", 172186

pomoci vhodne substituce vypoctete integral
`-Int(1/sin(x)^2*cos(x),x) = 1/sin(x)`

$$\left[-\int \frac{\cos(x)}{\sin(x)^2}\,dx = \frac{1}{\sin(x)},\ \textit{substituce:},\ t = \sin(x),\ \int -\frac{1}{t^2}\,dt = \frac{1}{t} \right]$$

$line := $ "PMMAT2|135083|Havli¹ta, Luká¹ |zk|ESF B-HPS NH [sem 2]

$zadani\ pro$, "Havli¹ta, Luká¹   ", 135083

pomoci vhodne substituce vypoctete integral
`2*Int(ln(x)*exp(ln(x)^2)/x,x) = exp(ln(x)^2)`

$$\left[2\int \frac{\ln(x)\,e^{(\ln(x)^2)}}{x}\,dx = e^{(\ln(x)^2)},\ \textit{substituce:},\ t = \ln(x),\ \int 2\,t\,e^{(t^2)}\,dt = e^{(t^2)} \right]$$

$line := $ "PMMAT2|171776|Holasová, Pavla |zk|ESF B-HPS FP [sem 2]

$zadani\ pro$, "Holasová, Pavla   ", 171776

pomoci vhodne substituce vypoctete integral
`Int(cos(x)*ln(sin(x))+cos(x),x) = sin(x)*ln(sin(x))`

$$\left[\int \cos(x)\,\ln(\sin(x)) + \cos(x)\,dx = \sin(x)\,\ln(\sin(x)),\ \textit{substituce:},\ t = \sin(x), \right.$$

$$\left. \int \ln(t) + 1\,dt = t\,\ln(t) \right]$$

$line := $ "PMMAT2|171762|Hurníková, Tereza |zk|ESF B-HPS FP [sem 2]

$zadani\ pro$, "Hurníková, Tereza   ", 171762

pomoci vhodne substituce vypoctete integral
`Int((cos(ln(x))*ln(x)-sin(ln(x)))/ln(x)^2/x,x) = sin(ln(x))/ln(x)`

$$\left[\int \frac{\cos(\ln(x))\,\ln(x) - \sin(\ln(x))}{\ln(x)^2\,x}\,dx = \frac{\sin(\ln(x))}{\ln(x)},\ \textit{substituce:},\ t = \ln(x), \right.$$

$$\left. \int \frac{\cos(t)}{t} - \frac{\sin(t)}{t^2}\,dt = \frac{\sin(t)}{t} \right]$$

$line := $ "PMMAT2| 99517|Charvát, Ondøej |zk|ESF B-HPS RRS [sem 2]"

$$zadani\ pro,\ "Charvát,\ Ondøej\quad ",\ 99517$$

```
pomoci vhodne substituce vypoctete integral
 `Int(cos(sin(x))*cos(x),x) = sin(sin(x))`
```

$$\left[\int \cos(\sin(x))\cos(x)\,dx = \sin(\sin(x)),\ substituce:,\ t = \sin(x),\right.$$

$$\left.\int \cos(t)\,dt = \sin(t)\right]$$

$$line := "PMMAT2|174783|Jakubcová,\ Simona\quad |zk|ESF\ M\text{-}HPS\ HOSP\backslash$$
$$sem\ 2]"$$

$$zadani\ pro,\ "Jakubcová,\ Simona\quad ",\ 174783$$

```
pomoci vhodne substituce vypoctete integral
 `2*Int((x^2+1)*(cos(x^2+1)*x^2+cos(x^2+1)+2*sin(x^2+1))*x,x) =
(x^2+1)^2*sin(x^2+1)`
```

$$\left[2\int (x^2+1)\,(\cos(x^2+1)\,x^2 + \cos(x^2+1) + 2\sin(x^2+1))\,x\,dx =\right.$$

$$(x^2+1)^2\,\sin(x^2+1),\ substituce:,\ t = x^2+1,$$

$$\left.\int \cos(t)\,t^2 + 2\sin(t)\,t\,dt = \sin(t)\,t^2\right]$$

$$line := "PMMAT2|\ 73899|Jurèek,\ Daniel\quad |zk|ESF\ B\text{-}HPS\ VEK\ [sem\ 6]$$

$$zadani\ pro,\ "Jurèek,\ Daniel\quad ",\ 73899$$

```
pomoci vhodne substituce vypoctete integral
 `Int(sin(x)*(cos(sin(x))*sin(x)+2*sin(sin(x)))*cos(x),x) =
sin(sin(x))*sin(x)^2`
```

$$\left[\int \sin(x)\,(\cos(\sin(x))\sin(x) + 2\sin(\sin(x)))\cos(x)\,dx =\right.$$

$$\sin(\sin(x))\sin(x)^2,\ substituce:,\ t = \sin(x),$$

$$\left.\int \cos(t)\,t^2 + 2\sin(t)\,t\,dt = \sin(t)\,t^2\right]$$

$$line := "PMMAT2|171933|Kamenská,\ Katarína\quad |zk|ESF\ B\text{-}HPS\ FP\ [sem\ 2]'$$

$$zadani\ pro,\ "Kamenská,\ Katarína\quad ",\ 171933$$

```
pomoci vhodne substituce vypoctete integral
 `Int((cos(ln(x))*ln(x)+sin(ln(x)))/x,x) = sin(ln(x))*ln(x)`
```

$$\left[\int \frac{\cos(\ln(x))\ln(x) + \sin(\ln(x))}{x}\,dx = \sin(\ln(x))\ln(x),\ substituce:,\right.$$

$$\left.t = \ln(x),\ \int \cos(t)\,t + \sin(t)\,dt = \sin(t)\,t\right]$$

$$line := "PMMAT2|170527|Kantor,\ Ondøej\quad |zk|ESF\ B\text{-}HPS\ FP\ [sem\ 2]'$$

$$zadani\ pro,\ "Kantor,\ Ondøej\quad ",\ 170527$$

```
pomoci vhodne substituce vypoctete integral
```

```
`2*Int(x/(x^4+2*x^2+2),x) = arctan(x^2+1)`
```

$$\left[2 \int \frac{x}{x^4 + 2\,x^2 + 2}\,dx = \arctan(x^2 + 1),\ \textit{substituce:}, t = x^2 + 1, \qquad \int \frac{1}{t^2 + 1}\,dt = \arctan(t) \right]$$

line :=

"PMMAT2|174836|Kapoun, Vítìzslav |zk|ESF M-HPS VEK [sem 2]

zadani pro, "Kapoun, Vítìzslav   ", 174836

```
pomoci vhodne substituce vypoctete integral
 `4*Int((x^2+1)*x/(x^8+4*x^6+6*x^4+4*x^2+2),x) = arctan(x^4+2*x^2+1)`
```

$$\left[4 \int \frac{(x^2 + 1)\,x}{x^8 + 4\,x^6 + 6\,x^4 + 4\,x^2 + 2}\,dx = \arctan(x^4 + 2\,x^2 + 1),\ \textit{substituce:}, \right.$$

$$\left. t = x^2 + 1,\ \int \frac{2\,t}{t^4 + 1}\,dt = \arctan(t^2) \right]$$

line :=

"PMMAT2|174675|Kedroò, Milan |zk|ESF M-HPS HOSP [sem 2]

zadani pro, "Kedroò, Milan   ", 174675

```
pomoci vhodne substituce vypoctete integral
 `2*Int(cos(x^2-1)/sin(x^2-1)*x,x) = ln(sin((x-1)*(x+1)))`
```

$$\left[2 \int \frac{\cos(x^2 - 1)\,x}{\sin(x^2 - 1)}\,dx = \ln(\sin((x - 1)(x + 1))),\ \textit{substituce:}, t = x^2 - 1, \right.$$

$$\left. \int \frac{\cos(t)}{\sin(t)}\,dt = \ln(\sin(t)) \right]$$

line := "PMMAT2|191617|Klimková, Jana |zk|ESF B-HPS FP [sem 2]

zadani pro, "Klimková, Jana   ", 191617

```
pomoci vhodne substituce vypoctete integral
 `2*Int(cos(x^2-1)/sin(x^2-1)*x,x) = ln(sin((x-1)*(x+1)))`
```

$$\left[2 \int \frac{\cos(x^2 - 1)\,x}{\sin(x^2 - 1)}\,dx = \ln(\sin((x - 1)(x + 1))),\ \textit{substituce:}, t = x^2 - 1, \right.$$

$$\left. \int \frac{\cos(t)}{\sin(t)}\,dt = \ln(\sin(t)) \right]$$

line :=

"PMMAT2|174818|Kopr, Eduard |zk|ESF M-HPS HOSP [sem 2]"

zadani pro, "Kopr, Eduard   ", 174818

```
pomoci vhodne substituce vypoctete integral
```

```
`4*Int((x^2+1)*exp((x^2+1)^2)*x,x) = exp((x^2+1)^2)`
```

$$\left[4 \int (x^2+1)\, \mathbf{e}^{\left((x^2+1)^2\right)} x\, dx = \mathbf{e}^{\left((x^2+1)^2\right)},\ substituce:, t = x^2+1, \qquad \int 2\, t\, \mathbf{e}^{(t^2)}\, dt = \mathbf{e}^{(t^2)} \right]$$

$$line :=$$

"PMMAT2|174678|Ko¹íèková, Irena |zk|ESF M-EKM POH [sem 2]

$$zadani\ pro, \text{"Ko¹íèková, Irena   ", } 174678$$

```
pomoci vhodne substituce vypoctete integral
`-Int(sin(ln(x))/x,x) = cos(ln(x))`
```

$$\left[-\int \frac{\sin(\ln(x))}{x}\, dx = \cos(\ln(x)),\ substituce:, t = \ln(x), \right.$$

$$\left. \int -\sin(t)\, dt = \cos(t) \right]$$

$$line :=$$

"PMMAT2|174797|Kozáèková, Barbora |zk|ESF M-HPS RRS [sem 2]

$$zadani\ pro, \text{"Kozáèková, Barbora   ", } 174797$$

```
pomoci vhodne substituce vypoctete integral
`2*Int(1/ln(x)/x,x) = 2*ln(ln(x))`
```

$$\left[2 \int \frac{1}{\ln(x)\, x}\, dx = 2\ln(\ln(x)),\ substituce:, t = \ln(x), \int \frac{2}{t}\, dt = 2\ln(t) \right]$$

$$line := \text{"PMMAT2| 78782|Kozel, Petr |zk|ESF B-HPS RRS [sem 4]}$$

$$zadani\ pro, \text{"Kozel, Petr   ", } 78782$$

```
pomoci vhodne substituce vypoctete integral
`-Int(1/(ln(x+1)-1)^2/(x+1),x) = 1/(ln(x+1)-1)`
```

$$\left[-\int \frac{1}{(\ln(x+1)-1)^2\, (x+1)}\, dx = \frac{1}{\ln(x+1)-1},\ substituce:, t = \ln(x+1), \right.$$

$$\left. \int -\frac{1}{(t-1)^2}\, dt = \frac{1}{t-1} \right]$$

$$line := \text{"PMMAT2| 99730|Kr¹ková, Marie |zk|ESF B-HPS NH [sem 2]}$$

$$zadani\ pro, \text{"Kr¹ková, Marie   ", } 99730$$

```
pomoci vhodne substituce vypoctete integral
`Int((ln(x)-1)/ln(x)^2,x) = x/ln(x)`
```

$$\left[\int \frac{\ln(x)-1}{\ln(x)^2}\, dx = \frac{x}{\ln(x)},\ substituce:, t = \ln(x), \int \frac{\mathbf{e}^t}{t} - \frac{\mathbf{e}^t}{t^2}\, dt = \frac{\mathbf{e}^t}{t} \right]$$

$$line := \text{"PMMAT2|173143|Kuèerová, Petra |zk|ESF M-HPS FP [sem 2]}$$

```
pomoci vhodne substituce vypoctete integral
 `Int(sin(x)*(cos(sin(x))*sin(x)+2*sin(sin(x)))*cos(x),x) =
sin(sin(x))*sin(x)^2`
```

$$\left[\int \sin(x)\left(\cos(\sin(x))\sin(x) + 2\sin(\sin(x))\right)\cos(x)\,dx = \right.$$

$$\sin(\sin(x))\sin(x)^2, \; substituce:, \; t = \sin(x),$$

$$\left. \int \cos(t)\,t^2 + 2\sin(t)\,t\,dt = \sin(t)\,t^2 \right]$$

line :=

"PMMAT2|172059|Kudlová, Monika |zk|ESF B-EKM POH [sem 2]

zadani pro, "Kudlová, Monika ", 172059

```
pomoci vhodne substituce vypoctete integral
 `2*Int(exp(x^2+1)*x^3/(x^2+1)^2,x) = exp(x^2+1)/(x^2+1)`
```

$$\left[2\int \frac{e^{(x^2+1)}\,x^3}{(x^2+1)^2}\,dx = \frac{e^{(x^2+1)}}{x^2+1}, \; substituce:, \; t = x^2+1, \int \frac{e^t}{t} - \frac{e^t}{t^2}\,dt = \frac{e^t}{t} \right]$$

line :=

"PMMAT2|171779|Kusák, Roman |zk|ESF B-EKM POH [sem 2]

zadani pro, "Kusák, Roman ", 171779

```
pomoci vhodne substituce vypoctete integral
 `Int((ln(ln(x))+1)/x,x) = ln(x)*ln(ln(x))`
```

$$\left[\int \frac{\ln(\ln(x))+1}{x}\,dx = \ln(x)\ln(\ln(x)), \; substituce:, \; t = \ln(x), \right.$$

$$\left. \int \ln(t) + 1\,dt = t\,\ln(t) \right]$$

line := "PMMAT2|172078|Lízalová, Eva |zk|ESF B-HPS RRS [sem 2]

zadani pro, "Lízalová, Eva ", 172078

```
pomoci vhodne substituce vypoctete integral
 `2*Int(sin(x)*cos(x)/(2-2*cos(x)^2+cos(x)^4),x) = arctan(sin(x)^2)`
```

$$\left[2\int \frac{\sin(x)\cos(x)}{2 - 2\cos(x)^2 + \cos(x)^4}\,dx = \arctan(\sin(x)^2), \; substituce:, \; t = \sin(x), \right.$$

$$\left. \int \frac{2t}{t^4+1}\,dt = \arctan(t^2) \right]$$

line := "PMMAT2|174665|Lorenc, Jan |zk|ESF M-EKM POH [sem 2]

zadani pro, "Lorenc, Jan ", 174665

pomoci vhodne substituce vypoctete integral

`2*Int((x^2+1)*(x^2+1+2*arctan(x^2+1)*x^4+4*arctan(x^2+1)*x^2+4*arctan(x^2+1))*x/(x^4+2*x^2+2),x) = (x^2+1)^2*arctan(x^2+1)`

$$\left[2 \int (x^2+1) \right.$$

$$(x^2 + 1 + 2 \arctan(x^2 + 1) \, x^4 + 4 \arctan(x^2 + 1) \, x^2 + 4 \arctan(x^2 + 1)) \, x$$

$$\Big/ (x^4 + 2\,x^2 + 2) \, dx = (x^2 + 1)^2 \arctan(x^2 + 1), \; \textit{substituce:}, t = x^2 + 1,$$

$$\left. \int \frac{t^2}{t^2 + 1} + 2\,t \arctan(t) \, dt = \arctan(t)\,t^2 \right]$$

$line := $ "PMMAT2| 99655|Malík, David |zk|ESF M-EKM POH [sem 6]

$zadani\ pro$, "Malík, David   ", 99655

pomoci vhodne substituce vypoctete integral

`2*Int(exp(x^2+1)*(x^4+4*x^2+3)*x,x) = exp(x^2+1)*(x^4+2*x^2+1)`

$$\left[2 \int \mathbf{e}^{(x^2+1)} (x^4 + 4\,x^2 + 3)\,x \, dx = \mathbf{e}^{(x^2+1)} (x^4 + 2\,x^2 + 1), \; \textit{substituce:}, \right.$$

$$\left. t = x^2 + 1, \int \mathbf{e}^t\,t^2 + 2\,\mathbf{e}^t\,t \, dt = \mathbf{e}^t\,t^2 \right]$$

$line := $ "PMMAT2|137128|Markusík, David |zk|ESF M-HPS FP [sem 4]

$zadani\ pro$, "Markusík, David   ", 137128

pomoci vhodne substituce vypoctete integral

`-Int((-1+2*ln(sin(x)))*cos(x)/sin(x)^3,x) = ln(sin(x))/sin(x)^2`

$$\left[-\int \frac{(-1 + 2 \ln(\sin(x))) \cos(x)}{\sin(x)^3} \, dx = \frac{\ln(\sin(x))}{\sin(x)^2}, \; \textit{substituce:}, t = \sin(x), \right.$$

$$\left. \int \frac{1}{t^3} - \frac{2 \ln(t)}{t^3} \, dt = \frac{\ln(t)}{t^2} \right]$$

$line := $ "PMMAT2|100118|Miklas, David |zk|ESF B-HPS FP [sem 6]

$zadani\ pro$, "Miklas, David   ", 100118

pomoci vhodne substituce vypoctete integral

`-Int(1/sin(x)^2*cos(x),x) = 1/sin(x)`

$$\left[-\int \frac{\cos(x)}{\sin(x)^2} \, dx = \frac{1}{\sin(x)}, \; \textit{substituce:}, t = \sin(x), \int -\frac{1}{t^2} \, dt = \frac{1}{t} \right]$$

$line := $

"PMMAT2|137816|Mlynka, Jaroslav |zk|ESF M-HPS HOSP [sem 4]

$zadani\ pro$, "Mlynka, Jaroslav   ", 137816

pomoci vhodne substituce vypoctete integral
`-Int((-1+2*ln(sin(x)))*cos(x)/sin(x)^3,x) = ln(sin(x))/sin(x)^2`

$$\left[-\int \frac{(-1 + 2\ln(\sin(x)))\cos(x)}{\sin(x)^3}\,dx = \frac{\ln(\sin(x))}{\sin(x)^2}, \; substituce:, t = \sin(x), \right.$$

$$\left. \int \frac{1}{t^3} - \frac{2\ln(t)}{t^3}\,dt = \frac{\ln(t)}{t^2} \right]$$

$line :=$

"PMMAT2|107842|Navrkal, Ondøej |zk|ESF M-EKM POH [sem 2]

zadani pro, "Navrkal, Ondøej   ", 107842

pomoci vhodne substituce vypoctete integral
`4*Int((x^2+1)*x/(x^8+4*x^6+6*x^4+4*x^2+2),x) = arctan(x^4+2*x^2+1)`

$$\left[4\int \frac{(x^2+1)x}{x^8 + 4x^6 + 6x^4 + 4x^2 + 2}\,dx = \arctan(x^4 + 2x^2 + 1), \; substituce:, \right.$$

$$\left. t = x^2 + 1, \; \int \frac{2t}{t^4 + 1}\,dt = \arctan(t^2) \right]$$

$line :=$

"PMMAT2|174963|Novotný, Michal |zk|ESF M-HPS RRS [sem 2]

zadani pro, "Novotný, Michal   ", 174963

pomoci vhodne substituce vypoctete integral
`2*Int(1/(x^2+1)*x,x) = ln(x^2+1)`

$$\left[2\int \frac{x}{x^2+1}\,dx = \ln(x^2 + 1), \; substituce:, t = x^2 + 1, \; \int \frac{1}{t}\,dt = \ln(t) \right]$$

$line :=$

"PMMAT2|171864|Odehnal, Martin |zk|ESF B-EKM POH [sem 2]

zadani pro, "Odehnal, Martin   ", 171864

pomoci vhodne substituce vypoctete integral
`Int(1/ln(x)/x,x) = ln(ln(x))`

$$\left[\int \frac{1}{\ln(x)\,x}\,dx = \ln(\ln(x)), \; substituce:, t = \ln(x), \; \int \frac{1}{t}\,dt = \ln(t) \right]$$

$line :=$

"PMMAT2|174734|Ohnheisrová, Iveta |zk|ESF M-HPS HOSP [sem 2]

zadani pro, "Ohnheisrová, Iveta   ", 174734

pomoci vhodne substituce vypoctete integral
`2*Int(exp(x^2+1)*(x^2-1)*x/(x^2+1)^3,x) = exp(x^2+1)/(x^2+1)^2`

$$\left[2 \int \frac{e^{(x^2+1)}(x^2-1)\,x}{(x^2+1)^3}\,dx = \frac{e^{(x^2+1)}}{(x^2+1)^2},\ substituce:,\ t = x^2+1,\qquad \int \frac{e^t}{t^2} - \frac{2\,e^t}{t^3}\,dt = \frac{e^t}{t^2} \right]$$

$$line := \text{"PMMAT2|172037|Petroviè, Martin} \quad |zk|ESF\ B\text{-}EKM\ POH\ [sem\ 2]$$

$$zadani\ pro,\ \text{"Petroviè, Martin} \quad ",\ 172037$$

pomoci vhodne substituce vypoctete integral
`Int((ln(ln(x))+1)/x,x) = ln(x)*ln(ln(x))`

$$\left[\int \frac{\ln(\ln(x))+1}{x}\,dx = \ln(x)\ln(\ln(x)),\ substituce:,\ t = \ln(x), \right.$$

$$\left. \int \ln(t) + 1\,dt = t\ln(t) \right]$$

$$line := \text{"PMMAT2| 99620|Petøík, Martin} \quad |zk|ESF\ M\text{-}HPS\ FP\ [sem\ 4]$$

$$zadani\ pro,\ \text{"Petøík, Martin} \quad ",\ 99620$$

pomoci vhodne substituce vypoctete integral
`2*Int((cos(x^2+1)*x^2+cos(x^2+1)-2*sin(x^2+1))*x/(x^2+1)^3,x) =
sin(x^2+1)/(x^2+1)^2`

$$\left[2 \int \frac{(\cos(x^2+1)\,x^2 + \cos(x^2+1) - 2\sin(x^2+1))\,x}{(x^2+1)^3}\,dx = \frac{\sin(x^2+1)}{(x^2+1)^2}, \right.$$

$$\left. substituce:,\ t = x^2+1,\ \int \frac{\cos(t)}{t^2} - \frac{2\sin(t)}{t^3}\,dt = \frac{\sin(t)}{t^2} \right]$$

$$line :=$$

$$\text{"PMMAT2|171888|Podhradský, Juraj} \quad |zk|ESF\ B\text{-}EKM\ POH\ [sem\ 2]"$$

$$zadani\ pro,\ \text{"Podhradský, Juraj} \quad ",\ 171888$$

pomoci vhodne substituce vypoctete integral
`2*Int(sin(x)*exp(sin(x)^2)*cos(x),x) = exp(sin(x)^2)`

$$\left[2 \int \sin(x)\,e^{(\sin(x)^2)}\cos(x)\,dx = e^{(\sin(x)^2)},\ substituce:,\ t = \sin(x), \right.$$

$$\left. \int 2\,t\,e^{(t^2)}\,dt = e^{(t^2)} \right]$$

$$line :=$$

$$\text{"PMMAT2|170290|Pokorný, Franti¹ek} \quad |zk|ESF\ M\text{-}EKM\ POH\ [sem\ 2]$$

$$zadani\ pro,\ \text{"Pokorný, Franti¹ek} \quad ",\ 170290$$

pomoci vhodne substituce vypoctete integral
`Int(cos(sin(x))*cos(x),x) = sin(sin(x))`

$$\left[\int \cos(\sin(x))\cos(x)\,dx = \sin(\sin(x)),\ \textit{substituce:}, t = \sin(x),\right.$$

$$\left.\int \cos(t)\,dt = \sin(t)\right]$$

line := "PMMAT2|134691|Potoèková, Zuzana |zk|ESF M-HPS FP [sem 2]

zadani pro, "Potoèková, Zuzana   ", 134691

```
pomoci vhodne substituce vypoctete integral
`Int(cos(sin(x))*cos(x),x) = sin(sin(x))`
```

$$\left[\int \cos(\sin(x))\cos(x)\,dx = \sin(\sin(x)),\ \textit{substituce:}, t = \sin(x),\right.$$

$$\left.\int \cos(t)\,dt = \sin(t)\right]$$

line := "PMMAT2|174793|Primová, Andrea |zk|ESF M-EKT EKON [

em 2]"

zadani pro, "Primová, Andrea   ", 174793

```
pomoci vhodne substituce vypoctete integral
`-2*Int((-1+ln(x^2+1))*x/(x^2+1)^2,x) = ln(x^2+1)/(x^2+1)`
```

$$\left[-2\int \frac{(-1+\ln(x^2+1))\,x}{(x^2+1)^2}\,dx = \frac{\ln(x^2+1)}{x^2+1},\ \textit{substituce:}, t = x^2+1,\ \int \frac{1}{t^2} - \frac{\ln(t)}{t^2}\,dt = \frac{\ln(t)}{t}\right]$$

line :=

"PMMAT2|171836|Prodìlalová, Linda |zk|ESF B-HPS VEK [sem 2]

zadani pro, "Prodìlalová, Linda ", 171836

```
pomoci vhodne substituce vypoctete integral
`Int(1/(arctan(x)^2+1)/(x^2+1),x) = arctan(arctan(x))`
```

$$\left[\int \frac{1}{(\arctan(x)^2+1)(x^2+1)}\,dx = \arctan(\arctan(x)),\ \textit{substituce:},\right.$$

$$\left. t = \arctan(x),\ \int \frac{1}{t^2+1}\,dt = \arctan(t)\right]$$

line := "PMMAT2|171818|Rojko, Andrej |zk|ESF B-EKM POH [sem 2]

zadani pro, "Rojko, Andrej   ", 171818

```
pomoci vhodne substituce vypoctete integral

`2*Int((arctan(x^2+1)*x^4+2*arctan(x^2+1)*x^2+2*arctan(x^2+1)+x^2+1)*x/(x^4+2*
x^2+2),x) = (x^2+1)*arctan(x^2+1)`
```

$$\left[2 \int \frac{(\arctan(x^2+1)\,x^4 + 2\arctan(x^2+1)\,x^2 + 2\arctan(x^2+1) + x^2 + 1)\,x}{x^4 + 2x^2 + 2} \right.$$

$$dx = (x^2+1)\arctan(x^2+1), \ \ substituce:, t = x^2 + 1,$$

$$\left. \int \arctan(t) + \frac{t}{t^2+1}\,dt = t\,\arctan(t) \right]$$

line := "PMMAT2|171756|Ryèek, Matou¹ |zk|ESF B-HPS VEK [sem 2]

zadani pro, "Ryèek, Matou¹   ", 171756

pomoci vhodne substituce vypoctete integral
`-Int(1/sin(x)^2*cos(x),x) = 1/sin(x)`

$$\left[-\int \frac{\cos(x)}{\sin(x)^2}\,dx = \frac{1}{\sin(x)}, \ \ substituce:, t = \sin(x), \ \int -\frac{1}{t^2}\,dt = \frac{1}{t} \right]$$

line := "PMMAT2|174809|Slezák, Martin |zk|ESF M-EKM POH [sem 2]

zadani pro, "Slezák, Martin   ", 174809

pomoci vhodne substituce vypoctete integral
`2*Int(exp(x^2+1)*x,x) = exp(x^2+1)`

$$\left[2 \int e^{(x^2+1)}\,x\,dx = e^{(x^2+1)}, \ \ substituce:, t = x^2 + 1, \ \int e^t\,dt = e^t \right]$$

line := "PMMAT2|171885|Slezáková, Petra |zk|ESF B-HPS VEK [sem 2]

zadani pro, "Slezáková, Petra   ", 171885

pomoci vhodne substituce vypoctete integral
`2*Int(exp(x^2+1)*x,x) = exp(x^2+1)`

$$\left[2 \int e^{(x^2+1)}\,x\,dx = e^{(x^2+1)}, \ \ substituce:, t = x^2 + 1, \ \int e^t\,dt = e^t \right]$$

line := "PMMAT2|171931|Staroò, Richard |zk|ESF B-HPS FP [sem 2]

zadani pro, "Staroò, Richard   ", 171931

pomoci vhodne substituce vypoctete integral
`Int((cos(sin(x))*sin(x)-sin(sin(x)))*cos(x)/sin(x)^2,x) =
sin(sin(x))/sin(x)`

$$\left[\int \frac{(\cos(\sin(x))\,\sin(x) - \sin(\sin(x)))\,\cos(x)}{\sin(x)^2}\,dx = \frac{\sin(\sin(x))}{\sin(x)}, \ \ substituce:, \right.$$

$$\left. t = \sin(x), \ \int \frac{\cos(t)}{t} - \frac{\sin(t)}{t^2}\,dt = \frac{\sin(t)}{t} \right]$$

line := "PMMAT2|172095|Steiger, Zdenìk |zk|ESF B-EKM POH [sem 2]

zadani pro, "Steiger, Zdenìk   ", 172095

```
pomoci vhodne substituce vypoctete integral
`2*Int(cos(x^2-1)/sin(x^2-1)*x,x) = ln(sin((x-1)*(x+1)))`
```

$$\left[\, 2 \int \frac{\cos(x^2 - 1)\, x}{\sin(x^2 - 1)}\, dx = \ln(\sin((x - 1)\,(x + 1))),\ \text{substituce:}, t = x^2 - 1, \right.$$

$$\left. \int \frac{\cos(t)}{\sin(t)}\, dt = \ln(\sin(t)) \right]$$

$$line := \text{"PMMAT2|174905|Stratil, Martin} \quad \text{|zk|ESF M-EKT EKON [sem 2]}$$

$$zadani\ pro, \text{"Stratil, Martin} \quad \text{", 174905}$$

```
pomoci vhodne substituce vypoctete integral
`2*Int(exp(x^2+1)*(x^4+4*x^2+3)*x,x) = exp(x^2+1)*(x^4+2*x^2+1)`
```

$$\left[\, 2 \int e^{(x^2 + 1)} (x^4 + 4 x^2 + 3)\, x\, dx = e^{(x^2 + 1)} (x^4 + 2 x^2 + 1),\ \text{substituce:}, \right.$$

$$\left. t = x^2 + 1,\ \int e^t\, t^2 + 2\, e^t\, t\, dt = e^t\, t^2 \right]$$

$$line := \text{"PMMAT2|174905|Stratil, Martin} \quad \text{|zk|ESF M-HPS HOSP [sem 2]}$$

$$zadani\ pro, \text{"Stratil, Martin} \quad \text{", 174905}$$

```
pomoci vhodne substituce vypoctete integral
`2*Int(exp(x^2+1)*(x^4+4*x^2+3)*x,x) = exp(x^2+1)*(x^4+2*x^2+1)`
```

$$\left[\, 2 \int e^{(x^2 + 1)} (x^4 + 4 x^2 + 3)\, x\, dx = e^{(x^2 + 1)} (x^4 + 2 x^2 + 1),\ \text{substituce:}, \right.$$

$$\left. t = x^2 + 1,\ \int e^t\, t^2 + 2\, e^t\, t\, dt = e^t\, t^2 \right]$$

$$line :=$$

$$\text{"PMMAT2|172083|Svobodová, Veronika |zk|ESF M-HPS FP [sem 2]}$$

$$zadani\ pro, \text{"Svobodová, Veronika ", 172083}$$

```
pomoci vhodne substituce vypoctete integral
`-Int((-
ln(x)+2*arctan(ln(x))*ln(x)^2+2*arctan(ln(x)))/(ln(x)^2+1)/ln(x)^3/x,x) =
arctan(ln(x))/ln(x)^2`
```

$$\left[\, -\int \frac{-\ln(x) + 2\arctan(\ln(x))\ln(x)^2 + 2\arctan(\ln(x))}{(\ln(x)^2 + 1)\ln(x)^3\, x}\, dx = \frac{\arctan(\ln(x))}{\ln(x)^2}, \right.$$

$$\left. \text{substituce:}, t = \ln(x),\ \int \frac{1}{(t^2 + 1)\, t^2} - \frac{2\arctan(t)}{t^3}\, dt = \frac{\arctan(t)}{t^2} \right]$$

$$line := \text{"PMMAT2|174671|©afáøová, Monika} \quad \text{|zk|ESF M-HPS FP [sem 2]}$$

$$zadani\ pro, \text{"©afáøová, Monika} \quad \text{", 174671}$$

pomoci vhodne substituce vypoctete integral
`ln(2)*Int(2^(x^2+1)*x,x) = 2^(x^2)`

$$\left[\ln(2)\int 2^{(x^2+1)}\,x\,dx = 2^{(x^2)},\ \textit{substituce:},\, t = x^2,\ \int 2^t\ln(2)\,dt = 2^t\right]$$

$$line :=$$

"PMMAT2| 99492|©amlová, Markéta |zk|ESF M-HPS RRS [sem 6]

$$zadani\ pro,\ \text{"©amlová, Markéta   ", 99492}$$

pomoci vhodne substituce vypoctete integral

`2*Int((arctan(x^2+1)*x^4+2*arctan(x^2+1)*x^2+2*arctan(x^2+1)+x^2+1)*x/(x^4+2*x^2+2),x) = (x^2+1)*arctan(x^2+1)`

$$\left[2\int\frac{(\arctan(x^2+1)\,x^4 + 2\arctan(x^2+1)\,x^2 + 2\arctan(x^2+1) + x^2 + 1)\,x}{x^4 + 2x^2 + 2}\right.$$

$$dx = (x^2+1)\arctan(x^2+1),\ \textit{substituce:},\, t = x^2 + 1,$$

$$\left.\int\arctan(t) + \frac{t}{t^2+1}\,dt = t\arctan(t)\right]$$

$$line :=$$

"PMMAT2|172194|©auerová, Ludmila |zk|ESF B-EKM POH [sem 2]

$$zadani\ pro,\ \text{"©auerová, Ludmila   ", 172194}$$

pomoci vhodne substituce vypoctete integral
`2*Int((cos(x^2+1)*x^2+cos(x^2+1)+sin(x^2+1))*x,x) = (x^2+1)*sin(x^2+1)`

$$\left[2\int(\cos(x^2+1)\,x^2 + \cos(x^2+1) + \sin(x^2+1))\,x\,dx = (x^2+1)\sin(x^2+1),\right.$$

$$\left.\textit{substituce:},\, t = x^2+1,\ \int\cos(t)\,t + \sin(t)\,dt = \sin(t)\,t\right]$$

$$line := \text{"PMMAT2|172149|©erý, Martin |zk|ESF B-HPS FP [sem 2]}$$

$$zadani\ pro,\ \text{"©erý, Martin   ", 172149}$$

pomoci vhodne substituce vypoctete integral
`2*Int(ln(x)*exp(ln(x)^2)/x,x) = exp(ln(x)^2)`

$$\left[2\int\frac{\ln(x)\,\mathrm{e}^{(\ln(x)^2)}}{x}\,dx = \mathrm{e}^{(\ln(x)^2)},\ \textit{substituce:},\, t = \ln(x),\ \int 2\,t\,\mathrm{e}^{(t^2)}\,dt = \mathrm{e}^{(t^2)}\right]$$

$$line :=$$

"PMMAT2|170179|©mídová, Lucie |zk|ESF M-EKM POH [sem 2]

$$zadani\ pro,\ \text{"©mídová, Lucie   ", 170179}$$

pomoci vhodne substituce vypoctete integral
`-Int((sin(x)-2*arctan(sin(x))+arctan(sin(x))*cos(x)^2)*cos(x)/sin(x)^2/(-2+cos(x)^2),x) = 1/sin(x)*arctan(sin(x))`

$$\left[-\int \frac{\left(\sin(x) - 2\arctan(\sin(x)) + \arctan(\sin(x))\cos(x)^2\right)\cos(x)}{\sin(x)^2\left(-2 + \cos(x)^2\right)}\, dx = \right.$$

$$\frac{\arctan(\sin(x))}{\sin(x)}, \ \ substituce:, \ t = \sin(x),$$

$$\left. \int \frac{1}{(t^2 + 1)\, t} - \frac{\arctan(t)}{t^2}\, dt = \frac{\arctan(t)}{t} \right]$$

$line := \text{"PMMAT2|171979|©»astná, Pavlína} \quad |zk|ESF\ B\text{-}HPS\ VEK\ [sem\ 2]$

$zadani\ pro, \ \text{"©»astná, Pavlína} \quad \text{"}, 171979$

pomoci vhodne substituce vypoctete integral
`Int((ln(x)-2)/ln(x)^3,x) = x/ln(x)^2`

$$\left[\int \frac{\ln(x) - 2}{\ln(x)^3}\, dx = \frac{x}{\ln(x)^2}, \ \ substituce:, \ t = \ln(x), \ \int \frac{e^t}{t^2} - \frac{2\, e^t}{t^3}\, dt = \frac{e^t}{t^2}\right]$$

$line :=$

$\text{"PMMAT2|106163|©várová, Jana} \quad |zk|ESF\ M\text{-}EKT\ EKON\ [sem\ 2]$

$zadani\ pro, \ \text{"©várová, Jana} \quad \text{"}, 106163$

pomoci vhodne substituce vypoctete integral
`2*Int(1/(x^2+1)*x,x) = ln(x^2+1)`

$$\left[2\int \frac{x}{x^2 + 1}\, dx = \ln(x^2 + 1), \ \ substituce:, \ t = x^2 + 1, \ \int \frac{1}{t}\, dt = \ln(t)\right]$$

$line :=$

$\text{"PMMAT2|172008|Tomková, Hana} \quad |zk|ESF\ B\text{-}HPS\ VEK\ [sem\ 2]$

$zadani\ pro, \ \text{"Tomková, Hana} \quad \text{"}, 172008$

pomoci vhodne substituce vypoctete integral
`Int(1/(arctan(x)^2+1)/(x^2+1),x) = arctan(arctan(x))`

$$\left[\int \frac{1}{\left(\arctan(x)^2 + 1\right)\left(x^2 + 1\right)}\, dx = \arctan(\arctan(x)), \ \ substituce:, \right.$$

$$\left. t = \arctan(x), \ \int \frac{1}{t^2 + 1}\, dt = \arctan(t)\right]$$

$line :=$

$\text{"PMMAT2|171930|Turcsányi, Richard} \quad |zk|ESF\ B\text{-}EKM\ POH\ [sem\ 2]$

$zadani\ pro, \ \text{"Turcsányi, Richard} \quad \text{"}, 171930$

pomoci vhodne substituce vypoctete integral
`Int((cos(sin(x))*sin(x)+sin(sin(x)))*cos(x),x) = sin(x)*sin(sin(x))`

$$\left[\int (\cos(\sin(x))\sin(x) + \sin(\sin(x)))\cos(x)\, dx = \sin(x)\sin(\sin(x)), \right.$$

$$\left. substituce:, t = \sin(x), \int \cos(t)\, t + \sin(t)\, dt = \sin(t)\, t \,\right]$$

line := "PMMAT2|171975|Turková, Lenka |zk|ESF B-HPS RRS [sem 2]

zadani pro, "Turková, Lenka ", 171975

```
pomoci vhodne substituce vypoctete integral
 `Int(exp(sin(x))*sin(x)*(sin(x)+2)*cos(x),x) = exp(sin(x))*sin(x)^2`
```

$$\left[\int e^{\sin(x)} \sin(x)\,(\sin(x)+2)\cos(x)\, dx = e^{\sin(x)} \sin(x)^2,\ substituce:, \right.$$

$$\left. t = \sin(x), \int e^t\, t^2 + 2\, e^t\, t\, dt = e^t\, t^2 \,\right]$$

line := "PMMAT2| 65353|Valentová, Jitka |zk|ESF M-HPS VEK [sem 4]

zadani pro, "Valentová, Jitka ", 65353

```
pomoci vhodne substituce vypoctete integral
 `Int(sin(x)*(-sin(x)-4*arctan(sin(x))+2*arctan(sin(x))*cos(x)^2)*cos(x)/(-
2+cos(x)^2),x) = arctan(sin(x))*sin(x)^2`
```

$$\left[\int \frac{\sin(x)\,(-\sin(x) - 4\arctan(\sin(x)) + 2\arctan(\sin(x))\cos(x)^2)\cos(x)}{-2 + \cos(x)^2}\, d \right.$$

$$x = \arctan(\sin(x))\sin(x)^2,\ substituce:, t = \sin(x),$$

$$\left. \int \frac{t^2}{t^2+1} + 2\, t \arctan(t)\, dt = \arctan(t)\, t^2 \,\right]$$

line :=

"PMMAT2|171857|Valentová, Lenka |zk|ESF B-EKM POH [sem 2]

zadani pro, "Valentová, Lenka ", 171857

```
pomoci vhodne substituce vypoctete integral
 `Int((cos(ln(x))*ln(x)-2*sin(ln(x)))/ln(x)^3/x,x) = sin(ln(x))/ln(x)^2`
```

$$\left[\int \frac{\cos(\ln(x))\ln(x) - 2\sin(\ln(x))}{\ln(x)^3\, x}\, dx = \frac{\sin(\ln(x))}{\ln(x)^2},\ substituce:, t = \ln(x), \right.$$

$$\left. \int \frac{\cos(t)}{t^2} - \frac{2\sin(t)}{t^3}\, dt = \frac{\sin(t)}{t^2} \,\right]$$

line := "PMMAT2|174790|Váòa, Vladislav |zk|ESF M-HPS FP [sem 2]

zadani pro, "Váòa, Vladislav ", 174790

```
pomoci vhodne substituce vypoctete integral
 `-Int((-1+ln(ln(x)))/ln(x)^2/x,x) = ln(ln(x))/ln(x)`
```

$$\left[-\int \frac{-1 + \ln(\ln(x))}{\ln(x)^2\, x}\, dx = \frac{\ln(\ln(x))}{\ln(x)}, \ \textit{substituce:}, t = \ln(x), \qquad \int \frac{1}{t^2} - \frac{\ln(t)}{t^2}\, dt = \frac{\ln(t)}{t} \right]$$

$line :=$

"PMMAT2|174973|Vdovec, Milan |zk|ESF M-EKM POH [sem 2]

$zadani\ pro$, "Vdovec, Milan   ", 174973

pomoci vhodne substituce vypoctete integral
`2*Int((x^2+1+2*ln(x^2+1)*x^2+2*ln(x^2+1))*x,x) =
x^4*ln(x^2+1)+ln(x^2+1)+2*ln(x^2+1)*x^2-2`

$$\left[2 \int (x^2 + 1 + 2\ln(x^2+1)\, x^2 + 2\ln(x^2+1))\, x\, dx = \right.$$

$$x^4 \ln(x^2+1) + \ln(x^2+1) + 2\ln(x^2+1)\, x^2 - 2, \ \textit{substituce:}, t = x^2+1,$$

$$\left. \int t + 2\, t\, \ln(t)\, dt = t^2 \ln(t) \right]$$

$line :=$ "PMMAT2|106541|Vegrichtová, Marta |zk|ESF M-HPS FP [sem 2]

$zadani\ pro$, "Vegrichtová, Marta   ", 106541

pomoci vhodne substituce vypoctete integral
`Int((arctan(ln(x))*ln(x)^2+arctan(ln(x))+ln(x))/(ln(x)^2+1)/x,x) =
ln(x)*arctan(ln(x))`

$$\left[\int \frac{\arctan(\ln(x))\, \ln(x)^2 + \arctan(\ln(x)) + \ln(x)}{(\ln(x)^2 + 1)\, x}\, dx = \ln(x)\, \arctan(\ln(x)), \right.$$

$$\left. \textit{substituce:}, t = \ln(x), \int \arctan(t) + \frac{t}{t^2+1}\, dt = t\, \arctan(t) \right]$$

$line :=$ "PMMAT2|171976|Virglová, Lucie |zk|ESF B-EKM POH [sem 2]

$zadani\ pro$, "Virglová, Lucie   ", 171976

pomoci vhodne substituce vypoctete integral
`Int(exp(sin(x))*(sin(x)-2)*cos(x)/sin(x)^3,x) = exp(sin(x))/sin(x)^2`

$$\left[\int \frac{\mathbf{e}^{\sin(x)}\, (\sin(x) - 2)\, \cos(x)}{\sin(x)^3}\, dx = \frac{\mathbf{e}^{\sin(x)}}{\sin(x)^2}, \ \textit{substituce:}, t = \sin(x), \qquad \int \frac{\mathbf{e}^t}{t^2} - \frac{2\,\mathbf{e}^t}{t^3}\, dt = \frac{\mathbf{e}^t}{t^2} \right]$$

$line :=$ "PMMAT2|174214|Vojtì¹ková, Ludmila |zk|ESF M-EKM POH [\
em 2]"

$zadani\ pro$, "Vojtì¹ková, Ludmila ", 174214

pomoci vhodne substituce vypoctete integral
`Int(ln(x)*(ln(x)+2),x) = ln(x)^2*x`

$$\left[\int \ln(x)\,(\ln(x)+2)\,dx = \ln(x)^2\,x,\ \ substituce:,\ t = \ln(x),\right.$$

$$\left.\int e^t\,t^2 + 2\,e^t\,t\,dt = e^t\,t^2\right]$$

$$line := \text{"PMMAT2|172170|Vravko, Matej} \qquad |zk|ESF\ B\text{-}HPS\ RRS\ [sem\ 2]$$

$$zadani\ pro,\ \text{"Vravko, Matej} \qquad \text{"}, 172170$$

```
pomoci vhodne substituce vypoctete integral
 `4*Int((x^2+1)*x/(x^8+4*x^6+6*x^4+4*x^2+2),x)  = arctan(x^4+2*x^2+1)`
```

$$\left[4\int \frac{(x^2+1)\,x}{x^8+4\,x^6+6\,x^4+4\,x^2+2}\,dx = \arctan(x^4 + 2\,x^2 + 1),\ \ substituce:,\right.$$

$$\left. t = x^2 + 1,\ \int \frac{2\,t}{t^4+1}\,dt = \arctan(t^2)\right]$$

$$line := \text{"PMMAT2|171839|Zlato¹, Michal} \qquad |zk|ESF\ B\text{-}EKM\ POH\ [sem\ 2]$$

$$zadani\ pro,\ \text{"Zlato¹, Michal} \qquad \text{"}, 171839$$

```
pomoci vhodne substituce vypoctete integral
 `Int(1/ln(x)/x,x) = ln(ln(x))`
```

$$\left[\int \frac{1}{\ln(x)\,x}\,dx = \ln(\ln(x)),\ \ substituce:,\ t = \ln(x),\ \int \frac{1}{t}\,dt = \ln(t)\right]$$

$$line := \text{"PMMAT2|174990|Zubatý, Adam} \qquad |zk|ESF\ M\text{-}HPS\ FP\ [sem\ 2]$$

$$zadani\ pro,\ \text{"Zubatý, Adam} \qquad \text{"}, 174990$$

```
pomoci vhodne substituce vypoctete integral
 `4*Int((x^2+1)*exp((x^2+1)^2)*x,x) = exp((x^2+1)^2)`
```

$$\left[4\int (x^2+1)\,e^{\left((x^2+1)^2\right)}\,x\,dx = e^{\left((x^2+1)^2\right)},\ \ substituce:,\ t = x^2 + 1,\ \int 2\,t\,e^{(t^2)}\,dt = e^{(t^2)}\right]$$

$$line := 0$$