

1. $\int_0^1 x \ln x dx$

2. $\int_0^1 x^2 \ln x dx$

3. $\int_0^1 x^3 \ln x dx$

4. $\int_0^1 x^4 \ln x dx$

5. $\int_0^1 x^5 \ln x dx$

6. $\int_0^1 x^6 \ln x dx$

7. $\int_0^1 x^7 \ln x dx$

3. $\int_0^1 x^2 \ln x dx$ (7 points)

1. $\int_0^1 x \ln x dx$

$\int_0^1 x^2 \ln x dx$ (7 points)

1.1. $\int_0^1 x \ln x dx$

1.2. $\int_0^1 x^2 \ln x dx$

1.3. $\int_0^1 x^3 \ln x dx, \int_0^1 x^4 \ln x dx, \int_0^1 x^5 \ln x dx$

1.4. $\int_0^1 x^6 \ln x dx$

1.5. $\int_0^1 x^7 \ln x dx$

2. $\int_0^1 x^2 \ln x dx$

$\int_0^1 x^3 \ln x dx$

3. $\int_0^1 x^4 \ln x dx$

$\int_0^1 x^5 \ln x dx$