

table integration & improper integrals

1. Use the end paper for this one - which formula applies?

a.

$$\int \frac{e^x}{\sqrt{6e^x - e^{2x}}} dx$$

b.

$$\int e^x \sqrt{6e^x - e^{2x}} dx$$

2. Improper integrals

a.

$$\int_1^{+\infty} \frac{1}{x^2} dx$$

b.

$$\int_1^{+\infty} \frac{1}{x} dx$$

c.

$$\int_1^5 \frac{1}{\sqrt{x-1}} dx$$

d.

$$\int_{-\infty}^{+\infty} \frac{1}{x^2 + 1} dx$$