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4

1695

$$\frac{d^ny}{dx^n}$$

$$n=$$

$$\frac{1}{2}$$

5

1730

1819

6

n

$$n\leq$$

m

$$y=$$

$$x^m$$

$$^ny_{dx^n=\frac{m!}{(m-n)!}x^{m-n}=\frac{\Gamma(m+1)}{\Gamma(m-n+1)}x^{m-n},}$$

$$m=$$

$$1,n=$$

$$\frac{1}{2}$$

$$\frac{1}{2}y_{dx^{\frac{1}{2}}=\frac{\Gamma(2)}{\Gamma(\frac{3}{2})}x^{\frac{1}{2}}=\frac{2}{\sqrt{\pi}}\sqrt{x}.}$$

7

n

n

$$x^{-a}$$

$$12$$

$$?$$

$$13$$

$$(\frac{d\lambda}{dt})^2$$

$$y-$$

$$y_0$$

$$\lambda \overline{\frac{\lambda}{(dt)^2}=-C(y-y_0)}$$

$$\lambda \overline{\frac{\lambda}{(y_0-y)^{\frac{1}{2}}}=C^{\frac{1}{2}}dt\Longrightarrow \int_0^{y_0} (y_0-y)^{\frac{-1}{2}}d\lambda=\sqrt{C}\int_0^T dt}$$

$$\int_0^{y_0} (y_0-$$

$$y)^{\frac{-1}{2}}d\lambda=$$

$$K, K=$$

$$\sqrt{C}T$$

$$\lambda =$$

$$F(y)$$

$$\lambda$$

$$y$$

$$d\lambda =$$

$$F'(y)dy$$

$$y_0,y$$

$$x,t$$

$$F'$$

$$f$$

$$\int_0^x (x-$$

$$t)^{\frac{-1}{2}}f(t)dt=$$

$$K\Longrightarrow$$

$$\frac{K}{\Gamma(\frac{1}{2})}=$$

$$\frac{1}{\Gamma(\frac{1}{2})}\int_0^x (x-$$

$$t)^{\frac{-1}{2}}f(t)dt=$$

$$D_{RL\,0,x}^{-1}f(x)$$