In [1]:
```
#IvanWang #50414321
```

In [2]:
```
#ChocolateChipCookieDough #RainbowSprinkles
```

In [3]:
```
from resources306 import*
from sympy.integrals import laplace_transform as L, inverse_laplace_tr
```

In [4]:
```
s, t = sp.symbols('s t')
y = sp.symbols('y')
```

In [5]:
```
L(t, t, s)[0]
```

Out[5]: $\frac{1}{s^2}$

In [7]:
```
L(sp.exp(8*t), t, s)[0]
```

Out[7]: $\frac{1}{s - 8}$

In [8]:
```
L(sp.cos(3*t), t, s)[0]
```

Out[8]: $\frac{s}{s^2 + 9}$

In [9]:
```
L(sp.sin(5*t), t, s)[0]
```

Out[9]: $\frac{5}{s^2 + 25}$

In [10]:
```
F1 = 1/(s-4)
F1
```

Out[10]: $\frac{1}{s - 4}$

In [11]:
```
f1 = Linv(F1,s,t)
f1
```

Out[11]: $e^{4t}\theta(t)$

In [12]:
```
F2 = s/(s**2 + 81)
F2
```

Out[12]: $\frac{s}{s^2 + 81}$

In [13]:
```
f2 = Linv(F2,s,t)
f2
```

Out[13]: $\cos(9t)\theta(t)$

In [14]:
```
F3 = 9/(s**2 + 81)
F3
```

Out[14]: $\frac{9}{s^2 + 81}$

In [15]:
```
f3 = Linv(F3,s,t)
f3
```
Out[15]: $\sin(9t)\theta(t)$

In [16]:
```
F4 = 24/s**5
F4
```
Out[16]: $\frac{24}{s^5}$

In [17]:
```
f4 = Linv(F4,s,t)
f4
```
Out[17]: $t^4\theta(t)$

In [18]:
```
#highfive #imgoingtoyeetoutofhereprof
```

In [ ]:
```
```