**For section 4.1) # 15:**

syms t s

f=exp(-t)\*sin(t);

laplace(f,t,s)

ans =

1/((s + 1)^2 + 1)

**For #19:**

syms t s

f=2\*t^4;

laplace(f,t,s)

ans =

48/s^5

**for #25:**

syms t s

f=(t+1)^3;

laplace(f,t,s)

ans =

(3\*(s/3 + 1))/s^2 + 6/s^3 + 6/s^4

**For Section 4.2)#9:**

syms t s

f= (1)/(4\*(s)+1);

ilaplace(f,s,t)

ans =

exp(-t/4)/4

**For #15:**

syms t s

f=(2\*(s)-6)/(s^2+9);

ilaplace(f,s,t)

ans =

2\*cos(3\*t) - 2\*sin(3\*t)

**For # 27:**

syms t s

f=(2\*(s)-4)/((s^2+s)\*(s^2+1));

ilaplace(f,s,t)

exp(-t)\*sin(t)