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[ > 21+5/2;      25*3;      5^7;      13-25;
[ > 2.1^25; 3^35;
[ > m:= 3.12; a:= 4.6; prod:= m*a;
[ > plot(2*x*(1-x), x=0..1, y=0..1);      # 0
[ > a:= evalf(Pi,45); b:= sqrt(5); b:=evalf(b,35);      # 1
[ > a^5*b; %/b^3;      # 2
[ > 13!;      # 3
[ > %^3;      # 4
[ > ifactor(%);      # 5
[ > solve(x^3=%,x);      # 6
[ > 123*111*129/127*187/1001;      # 7
[ > ifactor(%);      # 8
[ > evalf(%%,100);      # 9
[ > p1:= x -> (x+2)^2*(x^2-4);      # 10
[ > p1(y-3)^5;      # 11
[ > expand(%);      # 12
[ > plot(p1(x), x=-3..3);      # 13
[ > 3!!!;      # 14
[ > a:= 'a': b:= 'b': poly:= (a*x^5-b*x^3+15*x)^7;
[   expand(poly);      # 15
[ > coeff(%,a,2);      # 16
[ > factor(x^20-1048576);      # 17
[ > expand(%);      # 18
[ > yfnct:= 1/x + 1/x^2 - (x+2)/(x^2+2*x+5);      # 19
[ > ynew:=normal(yfnct);      # 20
[ > diff(yfnct,x);      # 21
[ > int(ynew,x);      # 22

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[ > F:= int(sqrt(x+1)/x^2,x);      # 23
[ > G:= diff(F,x);      # 24
[ > ?help
[ > ?diff
[ > ?int
[ > ?normal
[ > int(cos(x)/(sin(x)-cos(x)),x);  # 29
[ > taylor(sin(x^2),x,25);  # 30
[ > sum(1/i!, i=0..45);  # 31
[ > evalf(%,65);  # 32
[ > evalf(exp(1.0),65);  # 33
[ > limit(sin(x)/x, x=0);  limit(sin(x)/x, x=infinity); # 34
[ > with(student);  # 35
[ > fnct:= exp(x)*sin(x);  # 36
[ > showtangent(fnct,1.5,x=-Pi..Pi);  # 37
[ > minimize(fnct);  evalf(%); maximize(fnct,x,{x=0..3});
  evalf(%)# 38
[ > middlebox(fnct,x=0..Pi,20);  # 39
[ > middlesum(fnct,x=0..Pi,20);  # 40
[ > value(%); evalf(%);  # 41
[ > p:=18*x^4+69*x^3-40*x^2-124*x-48; solve(p=0);  # 42
[ > solve(p=1);  # 43
[ > fsolve(p=1);  # 44
[ > eq:= 4*x^2 - 9*y^2 =36; soln:= solve(eq,y);
  {soln,2/3*x,-2/3*x}; plot(%,x=-10..10);  # 45
[ > plot(trunc(2*x),x=0..5,style=LINE);  # 46
[ > plot(sin(x^2-3),x=0..10);  # 47
[ > plot(2*cos(x) + .5*sin(8*x),x=-Pi..Pi);  # 48
[ > plot([cos(4*t),t,t=0..2*Pi],coords=polar);  # 49
[ > plot([1 + 2*cos(t),t,t=0..2*Pi],coords=polar);  # 50
[ > plot([3+sin(t),2+1/2*cos(.5*t),t=0..4*Pi]);  # 51
[ > F3D:= (x,y) -> y*(1+x^2+y^2)*exp(-x^2-y^2);
  plot3d(F3D,-3..3,-3..3);  # 52 press left button on
  picture and drag to get rotation box & rotate; then press
  right mouse button to get menu to Redraw (or to do other
  things) to refresh graph!
[ > G3D:= (x,y) -> cos(x)*sin(3*y);
  plot3d(G3D,-3..3,-3..3);  # 53

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[ > solve( {A*x + 3*y =1, 3*x + 2*y =2},{x,y}); # 54
[ > dsolve(diff(y(x),x) - x^3*y(x)^2 = 0, y(x)); # 55
[ > with(plots):
  cylinderplot([z*theta,theta,cos(z^2)],theta=0..Pi,z=-2..2
, color = theta); #56
[ > with(plots): list_polys :=
  [seq([seq([T/10,S/20,sin(T*S/20)],T=0..20)],S=0..10)]:
  polygonplot3d(list_polys); #57
[ > with(plots):
  polyhedraplot([0,0,0],polytype=dodecahedron,style=PATCH,
                scaling=CONSTRAINED,orientation=[71,66]);
  #58
[ > with(plots):
  knot:= [ -10*cos(t) - 2*cos(5*t) + 15*sin(2*t),
          -15*cos(2*t) + 10*sin(t) - 2*sin(5*t), 10*cos(3*t), t=
          0..2*Pi]:
  helix_points :=
  [seq([10*cos(r/30),10*sin(r/30),r/3],r=-240..360)]:
  spacecurve(helix_points):
  spacecurve({helix_points,knot}); #59
[ > with(plots): sphereplot([z*theta,exp(theta/10),z^2],
  theta=0..2*Pi,z=-2..2); #60
[ > with(plots):
  tubeplot([3*sin(t),t,3*cos(t)],t=-3*Pi..4*Pi,
  radius=1.2+sin(t),numpoints=80);
  tubeplot( [ -10*cos(t) - 2*cos(5*t) + 15*sin(2*t),
              -15*cos(2*t) + 10*sin(t) - 2*sin(5*t),
              10*cos(3*t) ], t= 0..2*Pi,radius=3*cos(t*Pi/3));
  #61
[ > with(plots):
  tubeplot({[cos(t),sin(t),0],[0,sin(t)-1,cos(t)]},t=0..2*P
i,radius=1/4);
  tubeplot({[cos(t),sin(t),0],[0,sin(t)-1,cos(t)]},t=0..2*P
i,radius=1/10*t);
  tubeplot({[cos(t),sin(t),0,t=Pi..2*Pi,numpoints=15,radius
=0.25*(t-Pi)],

  [0,cos(t)-1,sin(t),t=0..2*Pi,numpoints=45,radius=0.25]});
  #62
[ > with(plots): F := (x,y) ->sin(x):

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| tubeplot({[cos(t),sin(t),0],[0,sin(t)-1,cos(t)]},t=0..2*P  
| i,radius=1/4,color=F,style=patch); #63  
[ > Sum(1/n^2,n=1..infinity)=sum(1/n^2,n=1..infinity): #63  
[ >
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