mathieeedoubtrans

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mathieeedoubtrans

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```

1.2 mathieeedoubtrans.library/IEEEDPAcos

```
 NAME
IEEEDPAcos -- compute the arc cosine of a number

 SYNOPSIS
  x   = IEEEDPAcos(  y  );
d0/d1          d0/d1

double  x,y;

 FUNCTION
Compute arc cosine of y in IEEE double precision

 INPUTS
y - IEEE double precision floating point value
```

```
 RESULT
x - IEEE double precision floating point value

 BUGS

 SEE ALSO
IEEEDPCos(), IEEEDPAtan(), IEEEDPAsin()
```

1.3 mathieeedoubtrans.library/IEEEDPAsin

```
 NAME
IEEEDPAsin -- compute the arcsine of a number

 SYNOPSIS
  x  = IEEEDPAsin(  y  );
d0/d1           d0/d1


double  x,y;

 FUNCTION
Compute the arc sine of y in IEEE double precision

 INPUTS
y - IEEE double precision floating point value

 RESULT
x - IEEE double precision floating point value

 BUGS

 SEE ALSO
IEEEDPSin(), IEEEDPAtan(), IEEEDPAcos()
```

1.4 mathieeedoubtrans.library/IEEEDPAtan

```
 NAME
IEEEDPAtan -- compute the arctangent of a floating point number

 SYNOPSIS
  x  = IEEEDPAtan(  y  );
d0/d1       d0/d1


double  x,y;

 FUNCTION
Compute arctangent of y in IEEE double precision

 INPUTS
y - IEEE double precision floating point value

 RESULT
x - IEEE double precision floating point value
```

```
 BUGS

 SEE ALSO
IEEEDPTan(), IEEEDPAsin(), IEEEDPACos()
```

1.5   mathieeedoubtrans.library/IEEEDPCos

```
 NAME
IEEEDPCos -- compute the cosine of a floating point number

 SYNOPSIS
  x   = IEEEDPCos(  y  );
d0/d1       d0/d1


double  x,y;

 FUNCTION
Compute cosine of y in IEEE double precision

 INPUTS
y - IEEE double precision floating point value

 RESULT
x - IEEE double precision floating point value

 BUGS

 SEE ALSO
IEEEDPAcos(), IEEEDPSin(), IEEEDPTan()
```

1.6   mathieeedoubtrans.library/IEEEDPCosh

```
 NAME
IEEEDPCosh -- compute the hyperbolic cosine of a floating point number

 SYNOPSIS
  x   = IEEEDPCosh(  y  );
d0/d1       d0/d1


double  x,y;

 FUNCTION
Compute hyperbolic cosine of y in IEEE double precision

 INPUTS
y - IEEE double precision floating point value

 RESULT
x - IEEE double precision floating point value

 BUGS
```

```
 SEE ALSO
IEEEDPSinh(), IEEEDPTanh()
```

1.7   mathieeedoubtrans.library/IEEEDPExp

```
 NAME
IEEEDPExp -- compute the exponential of e

 SYNOPSIS
  x   = IEEEDPExp(  y  );
d0/d1           d0/d1

double  x,y;

 FUNCTION
Compute e^y in IEEE double precision

 INPUTS
y - IEEE double precision floating point value

 RESULT
x - IEEE double precision floating point value

 BUGS

 SEE ALSO
IEEEDPLog()
```

1.8   mathieeedoubtrans.library/IEEEDPFieee

```
 NAME
IEEEDPFieee -- convert IEEE single to IEEE double

 SYNOPSIS
  x   = IEEEDPFieee(  y  );
d0/d1                d0

float y;
double  x;

 FUNCTION
Convert IEEE single precision number to IEEE double precision.

 INPUTS
y - IEEE single precision floating point value

 RESULT
x - IEEE double precision floating point value

 BUGS
```

```
 SEE ALSO
IEEEDPTieee()
```

1.9 mathieeedoubtrans.library/IEEEDPLog

```
 NAME
IEEEDPLog -- compute the natural logarithm of a floating point number

 SYNOPSIS
 x   = IEEEDPLog(  y  );
d0/d1           d0/d1


double  x,y;

 FUNCTION
Compute ln(y) in IEEE double precision

 INPUTS
y - IEEE double precision floating point value

 RESULT
x - IEEE double precision floating point value

 BUGS

 SEE ALSO
IEEEDPExp()
```

1.10 mathieeedoubtrans.library/IEEEDPLog10

```
 NAME
IEEEDPLog10 -- compute logarithm base 10 of a number

 SYNOPSIS
 x   = IEEEDPLog10(  y  );
d0/d1             d0/d1


double  x,y;

 FUNCTION
Compute the logarithm base 10 of y in IEEE double precision

 INPUTS
y - IEEE double precision floating point value

 RESULT
x - IEEE double precision floating point value

 BUGS

 SEE ALSO
IEEEDPLog()
```

1.11   mathieeedoubtrans.library/IEEEDPPow

```
 NAME
IEEEDPPow -- raise a number to another number power

 SYNOPSIS
  z   = IEEEDPPow(  x  ,   y  );
d0/d1          d2/d3 d0/d1


double  x,y,z;

 FUNCTION
Compute y^x in IEEE double precision

 INPUTS
x - IEEE double precision floating point value
y - IEEE double precision floating point value

 RESULT
z - IEEE double precision floating point value

 BUGS

 SEE ALSO
```

1.12   mathieeedoubtrans.library/IEEEDPSin

```
 NAME
IEEEDPSin -- compute the sine of a floating point number

 SYNOPSIS
  x   = IEEEDPSin(  y  );
d0/d1      d0/d1


double  x,y;

 FUNCTION
Compute sine of y in IEEE double precision

 INPUTS
y - IEEE double precision floating point value

 RESULT
x - IEEE double precision floating point value

 BUGS

 SEE ALSO
IEEEDPAsin(), IEEEDPTan(), IEEEDPCos()
```

1.13   mathieeedoubtrans.library/IEEEDPSincos

```
 NAME
IEEEDPSincos -- compute the arc tangent of a floating point number

 SYNOPSIS
  x   = IEEEDPSincos( z ,  y  );
d0/d1        a0  d0/d1

double  x,y,*z;

 FUNCTION
Compute sin and cosine of y in IEEE double precision.
Store the cosine in *z. Return the sine of y.

 INPUTS
y - IEEE double precision floating point value
z - pointer to IEEE double precision floating point number

 RESULT
x - IEEE double precision floating point value

 BUGS

 SEE ALSO
IEEEDPSin(), IEEEDPCos()
```

1.14 mathieeedoubtrans.library/IEEEDPSinh

```
 NAME
IEEEDPSinh -- compute the hyperbolic sine of a floating point number

 SYNOPSIS
  x   = IEEEDPSinh(  y  );
d0/d1        d0/d1

double  x,y;

 FUNCTION
Compute hyperbolic sine of y in IEEE double precision

 INPUTS
y - IEEE double precision floating point value

 RESULT
x - IEEE double precision floating point value

 BUGS

 SEE ALSO
IEEEDPCosh, IEEEDPTanh
```

1.15 mathieeedoubtrans.library/IEEEDPSqrt

```
 NAME
IEEEDPSqrt -- compute the square root of a number

 SYNOPSIS
  x   = IEEEDPSqrt(  y  );
d0/d1               d0/d1

double  x,y;

 FUNCTION
Compute square root of y in IEEE double precision

 INPUTS
y - IEEE double precision floating point value

 RESULT
x - IEEE double precision floating point value

 BUGS

 SEE ALSO
```

1.16   mathieeedoubtrans.library/IEEEDPTan

```
 NAME
IEEEDPTan -- compute the tangent of a floating point number

 SYNOPSIS
  x   = IEEEDPTan(  y  );
d0/d1     d0/d1

double  x,y;

 FUNCTION
Compute tangent of y in IEEE double precision

 INPUTS
y - IEEE double precision floating point value

 RESULT
x - IEEE double precision floating point value

 BUGS

 SEE ALSO
IEEEDPAtan(), IEEEDPSin(), IEEEDPCos()
```

1.17   mathieeedoubtrans.library/IEEEDPTanh

```
 NAME
IEEEDPTanh -- compute the hyperbolic tangent of a floating point number
```

```
 SYNOPSIS
  x   = IEEEDPTanh(  y  );
d0/d1       d0/d1

double  x,y;

 FUNCTION
Compute hyperbolic tangent of y in IEEE double precision

 INPUTS
y - IEEE double precision floating point value

 RESULT
x - IEEE double precision floating point value

 BUGS

 SEE ALSO
IEEEDPSinh(), IEEEDPCosh()
```

1.18   mathieeedoubtrans.library/IEEEDPTieee

```
 NAME
IEEEDPTieee -- convert IEEE double to IEEE single

 SYNOPSIS
  x   = IEEEDPTieee(  y  );
 d0              d0/d1

double  y;
float   x;

 FUNCTION
Convert IEEE double precision number to IEEE single precision.

 INPUTS
y - IEEE double precision floating point value

 RESULT
x - IEEE single precision floating point value

 BUGS

 SEE ALSO
IEEEDPFieee()
```