

```

assume(x,'real');
fx := evalf( ( exp( - (x - 4.0) * 2 ) / sqrt( 2.0 * pi * 0.5 * 2 ) ) ); int(fx, x = 0..8); int(x*fx, x = -3..11); int((x - 4) * 2 * fx, x = -7
..11); int(fx, x = 4 - 0.5..4 + 0.5);
0.7978845605 e-2.000000000 (x~ - 4.0)2
0.9999999996
3.999999998
0.2499999999
0.6826894919

```

(1)

```

g := evalf( int( fx * Dirac( y - 4.0 / x ), x = - infinity..infinity ) );
int( 0.7978845605 e-2.000000000 (x~ - 4.0)2 Dirac( y - 4.0 / x~ ) dx~

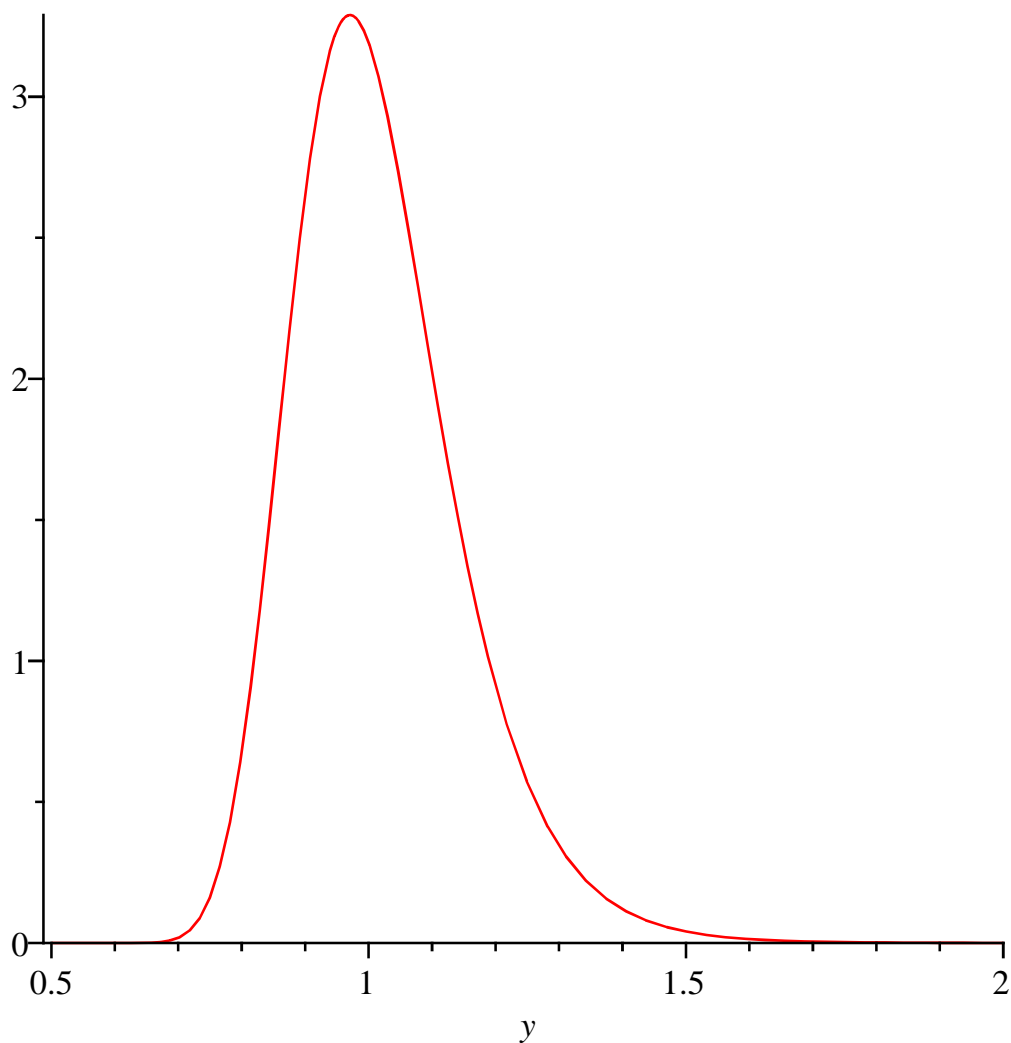
```

(2)

```

plot(g, y = 0.5..2);

```



y

(3)

int(1.000001 · *g*, *y* = 0.5 ..2.0);
0.9999693283 (4)

int(*y* · *g*, *y* = 0.5 ..2.0);
1.016354594 (5)

sqrt(*int*((*y* - 1) · 2 · *g*, *y* = 0.5 ..2.0));
0.1346159462 (6)

$\frac{4.}{(4. + 0.5)} - 1.;$ $\frac{4.}{(4. - 0.5)} - 1.;$
-0.1111111111
0.142857143 (7)

int(1.000001 · *g*, *y* = 1 - 0.11111 ..1 + 0.142857);
0.6826872407 (8)

fp := *fopen*("e:/tmp.dat", *WRITE*);
0 (9)

for *i* **from** 0 **to** 100 **do** *y* := *i* · 0.05 + 0.000001; *fprintf*(*fp*, "%lf %lf\n", *y*, 1.000001 · *g*) **end do**;
fclose(*fp*);