Front matter

lang: ru-RU title: author: |

institute: |

date:

Formatting

toc: false slide_level: 2 theme: metropolis header-includes:

- ''

- '' aspectratio: 43 section-titles: true

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                                    .   .

        x, y   .

                                      .   .

    (   )   ,

        .   ,   ,   .

                        ,   13   .

        1   (. [-@fig:001])

> w = sqrt(6.5);

> g = 0.0;

Figure 1:

```
function f=f(t)
f = 0*t;
endfunction

function dx=y(t,x)
dx1 = x(2);
dx(2) = -w.*w.*x(1)-g.*x(2)-f(t);
endfunction
```

Figure 2:

1   (. [-@fig:002])
1   (. [-@fig:003])

```
t0 = 0;

x0 = [-1;0];

t = [0 : 0.05 : 75];
```

Figure 3:

1   (. [-@fig:004])
1   (. [-@fig:005])
2   ,   (. [-
@fig:006])
2   (. [-@fig:009])
3   ,   (. [-
@fig:007])
3   (. [-@fig:010])

2

```
x = ode(x0,t0,t,y);

n = size(x,"c");

for i = 1:n
y1(i) = x(1,i);
y2(i) = x(2,i);
end

plot(y1,y2);
```
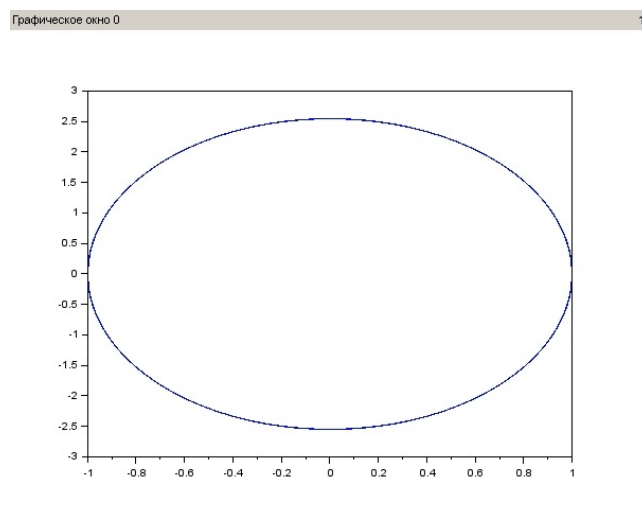
Figure 4:

Figure 5:   1

3

```
function dx=y(t,x)
dx(1) = x(2);
dx(2) = -w.*w.*x(1)-g.*x(2)-f(t);
endfunction
цупреждение : переопределение функции: y

x = ode(x0,t0,t,y);

n = size(x,"c");

for i = 1:n
y1(i) = x(1,i);
y2(i) = x(2,i);
end

plot(y1,y2);
```
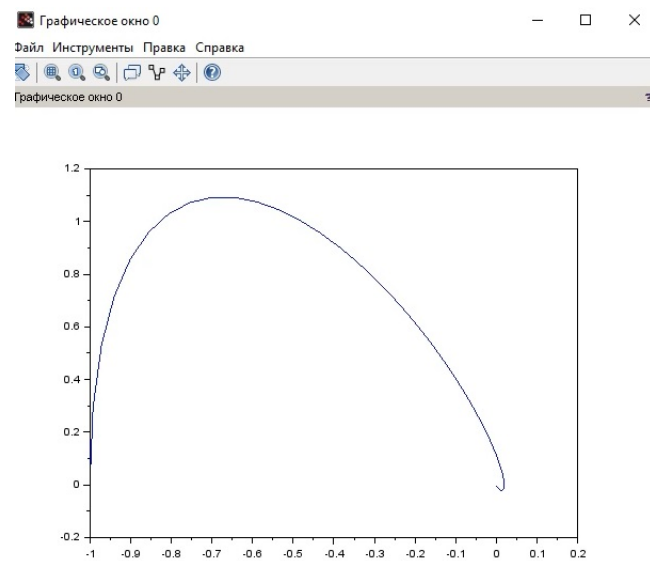
Figure 6:   2

Figure 7:   2

```
g = 3.0;

w = sqrt(7);

 function f=f(t)
 f = sin(2*t);
 endfunction
цупреждение : переопределение функции: f

 x = ode(x0,t0,t,y);

 n = size(x,"c");

 for i = 1:n
 y1(i) = x(1,i);
 y2(i) = x(2,i);
 end

 plot(y1,y2);
```
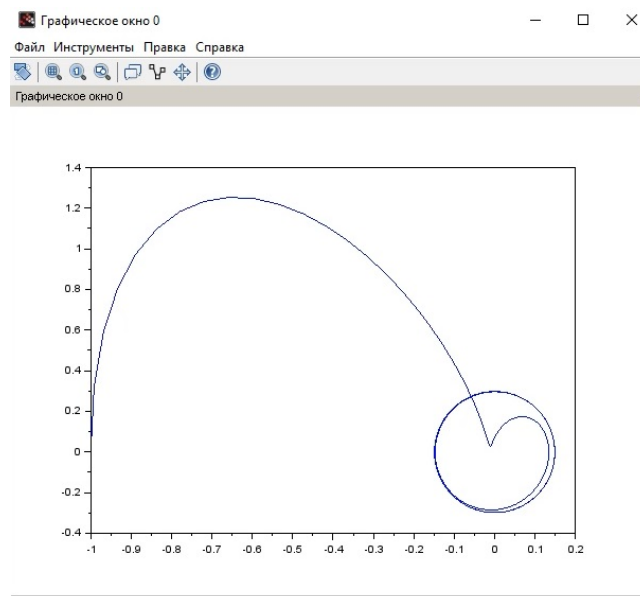
Figure 8:   3

Figure 9:   3

Wer's nicht glaubt, bezahlt einen Taler