Seite 1

```
import pm.gamewindow.*;
                                  void aufgabe1()
class Sprite
                                      sp1.setPosition(
                                         window.getWidth() / 2 -
                                            spl.getWidth() / 2,
  double x, y;
                                         window.getHeight() / 2 -
  double richtung;
   double speed;
                                            sp1.getHeight() / 2);
                                      sp1.setSpeed(10);
   GameImage image;
                                      while (true)
   . . .
                                      {
  double getX()
                                         if (window.isKeyDown(
                                                KeyEvent.VK RIGHT))
      return x;
                                            sp1.setRichtung(0);
                                           spl.bewege();
   double getY()
      return y;
                                         // ... und entsprechend für
                                         // LEFT, UP und DOWN ...
   int getWidth()
                                         if (sp1.getX() < 0)
   {
      return image.getWidth();
                                            sp1.setX(0);
                                         }
                                         if (sp1.getX() >
   int getHeight()
                                               window.getWidth() -
                                                   sp1.getWidth())
      return image.getHeight();
                                         {
                                            sp1.setX(window.getWidth() -
   }
                                                        sp1.getWidth());
   . . .
                                         if (sp1.getY() < 0)
                                            sp1.setY(0);
                                         if (sp1.getY() >
                                               window.getHeight() -
                                                   sp1.getHeight())
                                            sp1.setY(window.getHeight() -
                                                       sp1.getHeight());
                                         }
```

}

}

window.clear();
spl.draw(window);
window.paintFrame();

```
void aufgabe2()
                                            if (sp2.getY() < 0)
   sp1.setPosition(100, 100);
   sp2.setPosition(
                                               sp2.setRichtung(90);
      window.getWidth() -
      sp2.getWidth() - 100, 100);
                                            if (sp2.getY() >
   sp3.setPosition(
                                                   window.getHeight() -
      window.getWidth() -
                                                      sp2.getHeight() )
      sp3.getWidth() - 100,
      window.getHeight() -
                                               sp2.setRichtung(270);
      sp3.getHeight() - 100);
                                            }
   sp4.setPosition(100,
      window.getHeight() -
                                            if (sp4.getY() < 0)
      sp4.getHeight() - 100);
                                               sp4.setRichtung(90);
   sp1.setSpeed(10);
   sp2.setSpeed(10);
                                            if (sp4.getY() >
   sp3.setSpeed(10);
                                                   window.getHeight() -
                                                      sp4.getHeight())
   sp4.setSpeed(10);
                                            {
   sp1.setRichtung(0);
                                               sp4.setRichtung(270);
   sp2.setRichtung(90);
                                            }
   sp3.setRichtung(180);
   sp4.setRichtung(270);
                                            window.clear();
                                            spl.draw(window);
   while (true)
                                            sp2.draw(window);
                                            sp3.draw(window);
      sp1.bewege();
                                            sp4.draw(window);
      sp2.bewege();
                                            window.paintFrame();
      sp3.bewege();
                                         }
      sp4.bewege();
                                      }
      if (sp1.getX() < 0)
         sp1.setRichtung(0);
      if (sp1.getX() >
             window.getWidth() -
                spl.getWidth())
      {
         sp1.setRichtung(180);
      if (sp3.getX() < 0)
         sp3.setRichtung(0);
      if (sp3.getX() >
             window.getWidth() -
                sp3.getWidth())
      {
         sp3.setRichtung(180);
      }
```

```
void aufgabe3()
   spl.setPosition(
      window.getWidth() / 2 - spl.getWidth() / 2,
      window.getHeight() / 2 - spl.getHeight() / 2);
   // ebenso für die anderen Sprites
   sp1.setSpeed(10);
   sp2.setSpeed(8);
   sp3.setSpeed(6);
   sp4.setSpeed(4);
   while (true)
      spl.dreheZu(window.getMouseX(), window.getMouseY());
      sp2.dreheZu(sp1.getX(), sp1.getY());
      sp3.dreheZu(sp2.getX(), sp2.getY());
      sp4.dreheZu(sp3.getX(), sp3.getY());
      spl.bewege();
      sp2.bewege();
      sp3.bewege();
      sp4.bewege();
      window.clear();
      sp1.draw(window);
      sp2.draw(window);
      sp3.draw(window);
      sp4.draw(window);
      window.paintFrame();
}
```

