```
6.13 Drehmatrix im R2
     Da) = (cos d tsind)
   a) D(a) = D(a) - D(a) is touthogonal
       Transponierte Mutrix:
       Da = (cos a sin a)
        Wenn Da. Da = E gilt, gill Da = Da):
     Do. Da E
    (cos & - sin d) · (cos & sin d) = (cos & · (os & + (-sin &) (-sin &) cos & · sin & + (-sin &) · (os &)

sin & cos &) · (sin &) · (cos & · (os &) · (os &) · (os &)

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        = (cos 2 + sin 2 a sin 2 a + cos 2 2) = (1 0)
   5) |D(a) = 1
       [D(a) = | cos & sin a | = cos & cos & + sin 2 · sin & = cos 2 d + sin 2 d = 1/
   0) D = D(2)
                                                                                                                                      cos -d = cos 2 > Additions theorem
           (cos-d sin-d) = (cos d -sin d) =>
-sin-d cos-d) = (cos d -sin d cos d)
                                                                                                                       sin-a = -sind -> Additions theorem
                                                                                                                                     -sin-d= sindE) sind= sind
   DO. DO = DO. DO = D(2+ P)
       Dar DB
       (cos & sind (cos B) sin B) = (cos & cos B + sind (sin B) (os d sin D + sin 2 (08 B)

-sind cos d) (sin B) cos B) (sind cos B + cosd (sin B) sind sin B' (os d cos B)
       = (cos (a+B) sin (a+B))
-sin (a+B) eos (a+D)
      D(P).D(a)
      (cos B sin B) (cos a sin d) = (cos P · cos d + sin B· (-sin a) cos B· sin d + sin B· cos a)
(-sin B cos B) (-sin B cos d + cos B· (-sin B) -sin B·sin d + cos B·cos a)
       = (cos (a+B) sin (a+B)) = Da). D(P)
       (-sin (a+B) cos (a+B)
     D(x+B)
     (cos (a+B) sin(a+B)
        -sih(a+B) (05 (2+B))
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