```
Welcome to DrRacket, version 8.8 [cs].
Language: scheme, with debugging; memory limit: 128 MB.
((5.347581205359404 -88.18602412571599 947.5992112242811 -96.90066163591928) . 3478)
> (planeRANSAC "Point_Cloud_1_No_Road_Reduced.xyz" 0.99 0.2 1)
((-0.046620874906584286 -3.8222963884159027 122.81011922819997 -24.454824972926435) . 3502)
> (planeRANSAC "Point_Cloud_1_No_Road_Reduced.xyz" 0.99 0.5 2)
((26.298382507663568 43.316982970390406 -252.6692789657386 -5.810017442187174) . 4732)
> (planeRANSAC "Point_Cloud_1_No_Road_Reduced.xyz" 0.80 0.2 0.5)
((-0.8060453055895245 1.4113222582057832 71.34551819232593 -0.9659400648203418) . 2445)
> (planeRANSAC "Point_Cloud_2_No_Road_Reduced.xyz" 0.99 0.2 1)
((-1.7059460693326591 -2.7923489129470247 -32.43822290046745 24.35714325606434) . 5893)
> (planeRANSAC "Point_Cloud_2_No_Road_Reduced.xyz" 0.99 0.5 2)
((-0.1936367256707776 0.4986669422473831 -5.217476458143372 1.2179610635049214) . 7823)
> (planeRANSAC "Point_Cloud_2_No_Road_Reduced.xyz" 0.80 0.2 0.5)
((-23.676410646194103 -103.67291516201122 -489.86628139850694 471.58690028468845) . 3376)
> (planeRANSAC "Point_Cloud_3_No_Road_Reduced.xyz" 0.99 0.2 1)
((-29.955022056999546 13.331722408753233 267.88783826959764 -325.1471136638782) . 5394)
> (planeRANSAC "Point_Cloud_2_No_Road_Reduced.xyz" 0.99 0.5 2)
((-6.477835434713727 -1.6002873060909089 -165.37145459312677 222.0140512524571) . 8271)
> (planeRANSAC "Point_Cloud_3_No_Road_Reduced.xyz" 0.99 0.5 2)
((-9.010869565071655 33.79114802974148 234.51546328209605 -336.7710401210243) . 7639)
> (planeRANSAC "Point_Cloud_3_No_Road_Reduced.xyz" 0.80 0.2 0.5)
((18.489899636666454 -3.4459538741735076 -111.98466657568302 118.96571001309789) . 3181)
> (random-3-points '((0 0 0) (1 1 1) (2 2 2) (3 3 3) (4 4 4)))
((1 1 1) (2 2 2) (0 0 0))
> (random-3-points '((0 0 0) (1 1 1) (2 2 2) (3 3 3) (4 4 4)))
((2 2 2) (0 0 0) (3 3 3))
> (plane '(1 5 3) '(4 5 6) '(8 1 9))
(12 3 -12 9)
> (plane '(1 2 3) '(6 7 10) '(1 5 6))
(-6 -15 15 -9)
> (distance-from-plane '(-6 -15 15 -9) '(1 2 3))
0
> (distance-from-plane '(-6 -15 15 -9) '(0 9 5))
3.12990356022295
> (get-support '(-6 -15 15 -9) '((1 2 3) (6 7 10) (1 5 6) (13 15 119)) 2)
((-6 -15 15 -9) . 3)
> (get-support '(-6 -15 15 -9) '((1 2 3) (6 7 10) (1 5 6) (13 15 119)) 100)
((-6 -15 15 -9) . 4)
```

```
> (dominantPlane '((-5.3129109 0.336153973 0.39271088)
  (-5.442733358 0.149305066 -0.048846397)
  (-5.483027127 0.355853761 -0.398578564)
  (-6.617345499 -0.045837601 0.603870467)
  (-5.248219829 0.351818111 0.003580368)
  (-5.468973216 0.371794361 -0.397638032)
  (-5.644454252 0.184573817 0.568371749)
  (-5.279517288 0.368245198 0.196743798)
  (-5.323459657 0.181146444 -0.241224688)
  (-5.922420603 0.426881619 0.656796377)
  (-5.704477074 -0.002520161 0.311939149)
  (-5.474087067 0.001976501 -0.099946839)
  (-5.793393512 0.217667621 -0.476130388)
  (-5.637250032 0.218972337 0.567770934)
  (-5.220361402 0.396320827 0.194626284)
  (-5.396068797 0.018503336 -0.098522936)
  (-5.805644215 0.23596665 -0.47719445)
  (-5.278297149 0.415341469 0.390577362)
  (-5.406017017 0.033047476 0.097667592)
  (-5.354502073 0.231558902 -0.24271765)
  (-5.477759175 0.246447385 0.551849282)
  (-5.275596747 0.433087031 0.196780947)
  (-5.392854217 0.051583954 -0.098468167)
  (-6.774190261 0.075294669 0.868087728)
  (-5.405589635 0.260577014 0.347314024)
  (-5.18007668 0.443161437 0.003538847)
  (-5.555133572 0.072702503 -0.305451924)
  (-5.597148889 0.081438423 0.510813549)
  (-5.359771214 0.277666415 0.148037866)
  (-5.200039862 0.463139249 -0.187782099)
  (-5.493142283 0.297822474 0.553651726)
  (-5.300247315 0.484260767 0.197858286)
  (-5.453130253 0.102360923 -0.099581731)
  (-5.52072789 0.309272786 -0.454112313)
  (-5.297120437 0.498687866 0.392490164)
  (-5.306073501 0.307540385 0.146604091)
  (-5.499771407 0.120116483 -0.100439725))
                    5 1)
((-0.07946469124114271 0.05428323230370781 -0.02771944490945275 -0.4340711219510165) . 37)
> (ransacNumberOfIterations 0.99 0.2)
573
> (ransacNumberOfIterations 0.8 0.5)
12
>
```