```
Clear[a, b, n]
m = {{−2an, a, 0}, {1, −1, 1}, {0, −b, 0}};
m//MatrixForm
match =
And@@
(Equal@@@
Transpose[{CoefficientList[Expand[k(l − x)(l − y)(l − z)], l],
CoefficientList[CharacteristicPolynomial[m, l], l]}])
FindInstance[match&&a > 0&&b > 0&&n > 0&&x < 0&&y < 0&&z < 0,
{a, b, n, x, y, z, k}]
match =
And@@
(Equal@@@
Transpose[
{CoefficientList[Expand[k(l − (x + Iy))(l − (x − Iy))(l − z)], l],
CoefficientList[CharacteristicPolynomial[m, l], l]}])
FindInstance[match&&a > 0&&b > 0&&n > 0&&x < 0&&y ≥ 0&&z < 0,
{a, b, n, x, y, z, k}]
FindInstance[match&&a > 0&&b > 0&&n > 0&&x > 0&&y ≥ 0&&z < 0,
{a, b, n, x, y, z, k}]
FindInstance[match&&a > 0&&b == 14&&n==1/6&&x==0&&y ≥ 0&&z < 0,
{a, b, n, x, y, z, k}]
FindInstance[match&&a > 0&&b > 0&&n > 0&&x > 0&&y ≥ 0&&z > 0,
{a, b, n, x, y, z, k}]
```