**1. (3D rotation): 1 point**

Une image contenant texte

Description générée automatiquement

Code can be find in : source/ExerciseOne/ExerciseOne.cpp

1. **(Perspective projection): 1 point**

Perspective projection matrix : (

Point :

With n = 6

Then the calcul is :

Perspective projection matrix . Point

Step 1

Step 2

Step 3

Matrix  = (

Step 4

Matrix = ( = =

The canonical perspective projection of the point is

1. **(3D Reflection): 2 point**

Une image contenant texte

Description générée automatiquement

Code can be find in : source/ExerciseThree/ExerciseThree.cpp

1. **(Diffuse shader): 1 Point**

**First Step : Find the matrix**

**Calcul is : (Q – P) \* (R – P)**

**The matrix to calcul the diffuse color is**

Second Step : Find the ratio

Step Three : find the new color

The diffuse color is