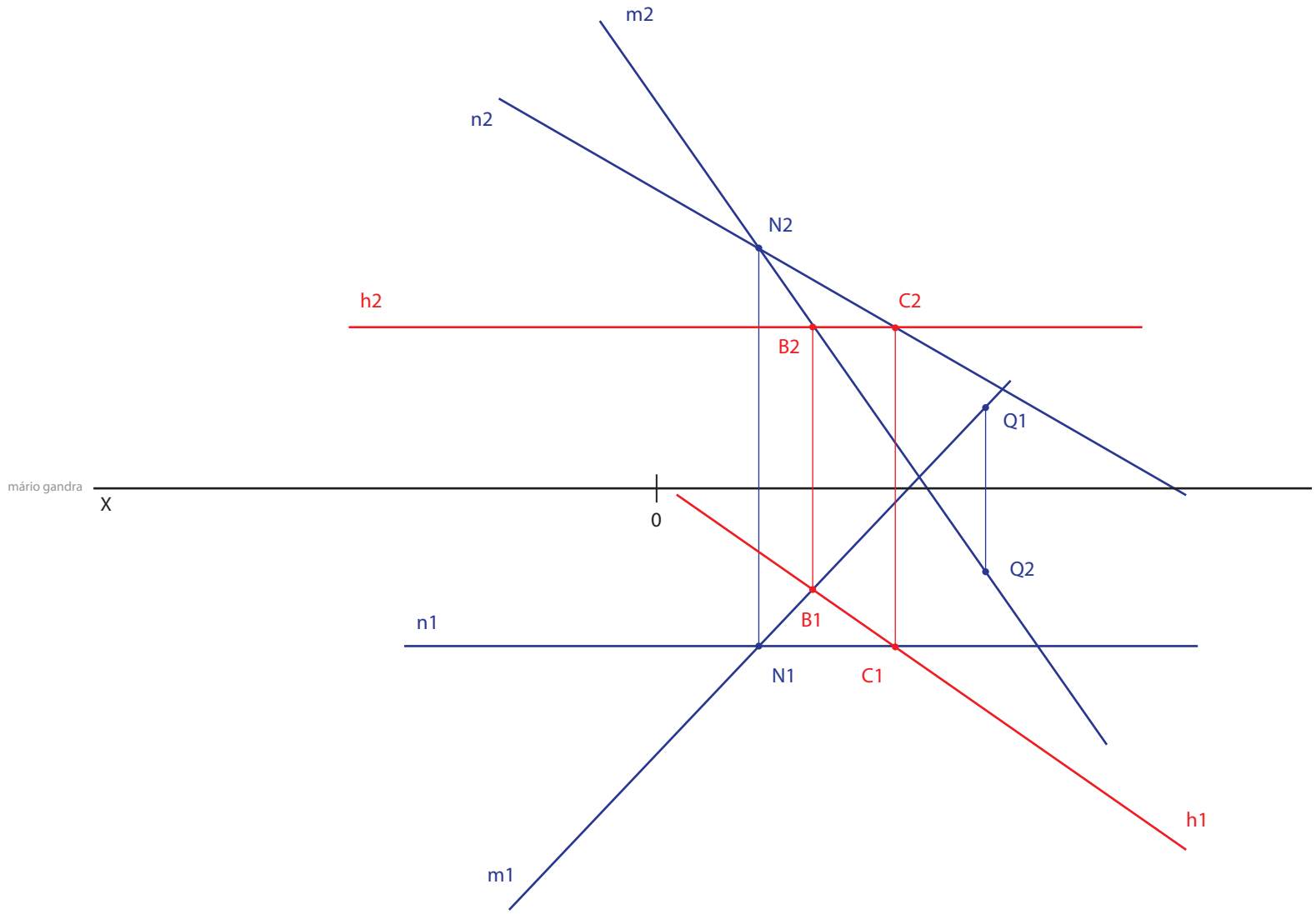
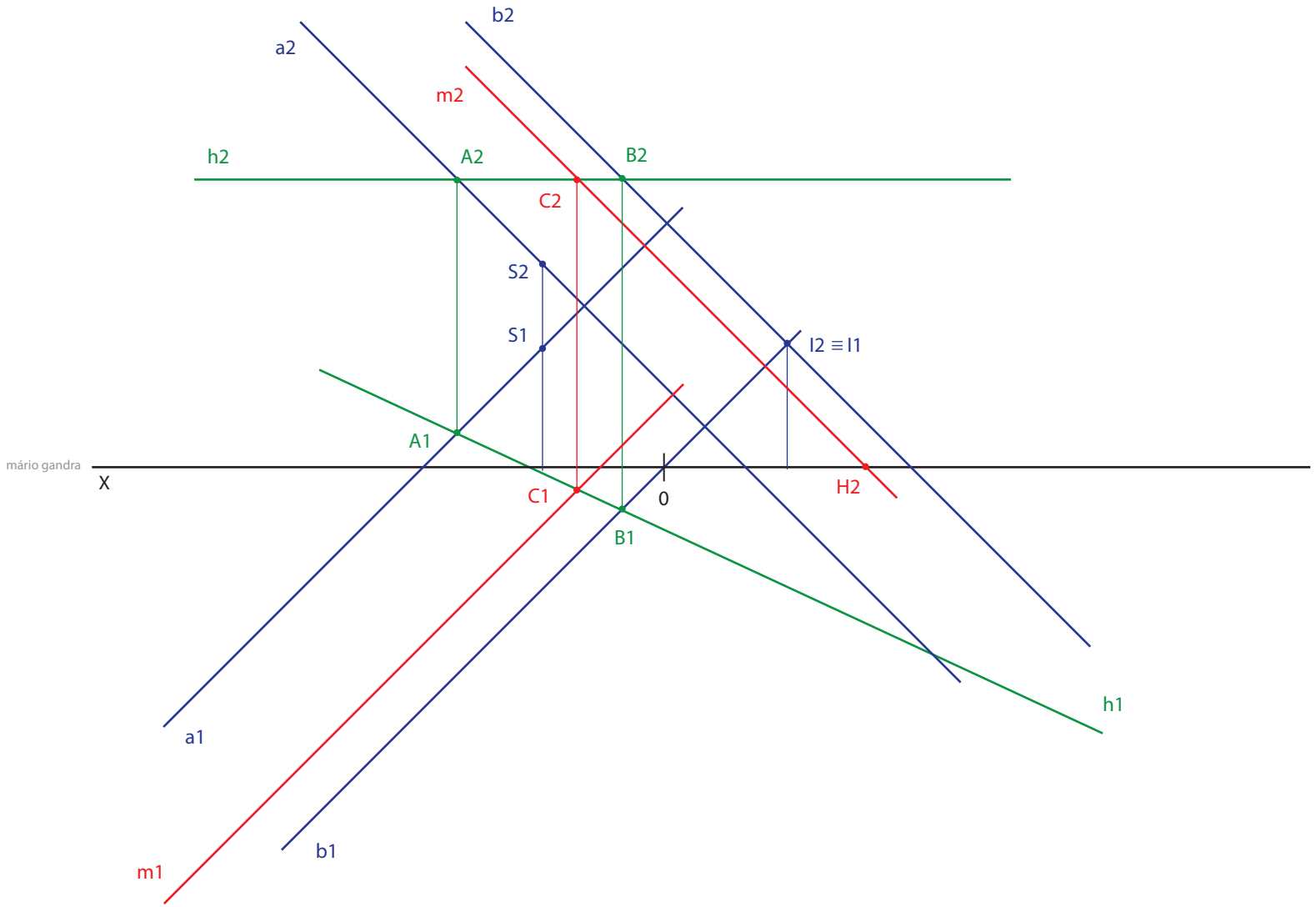
1

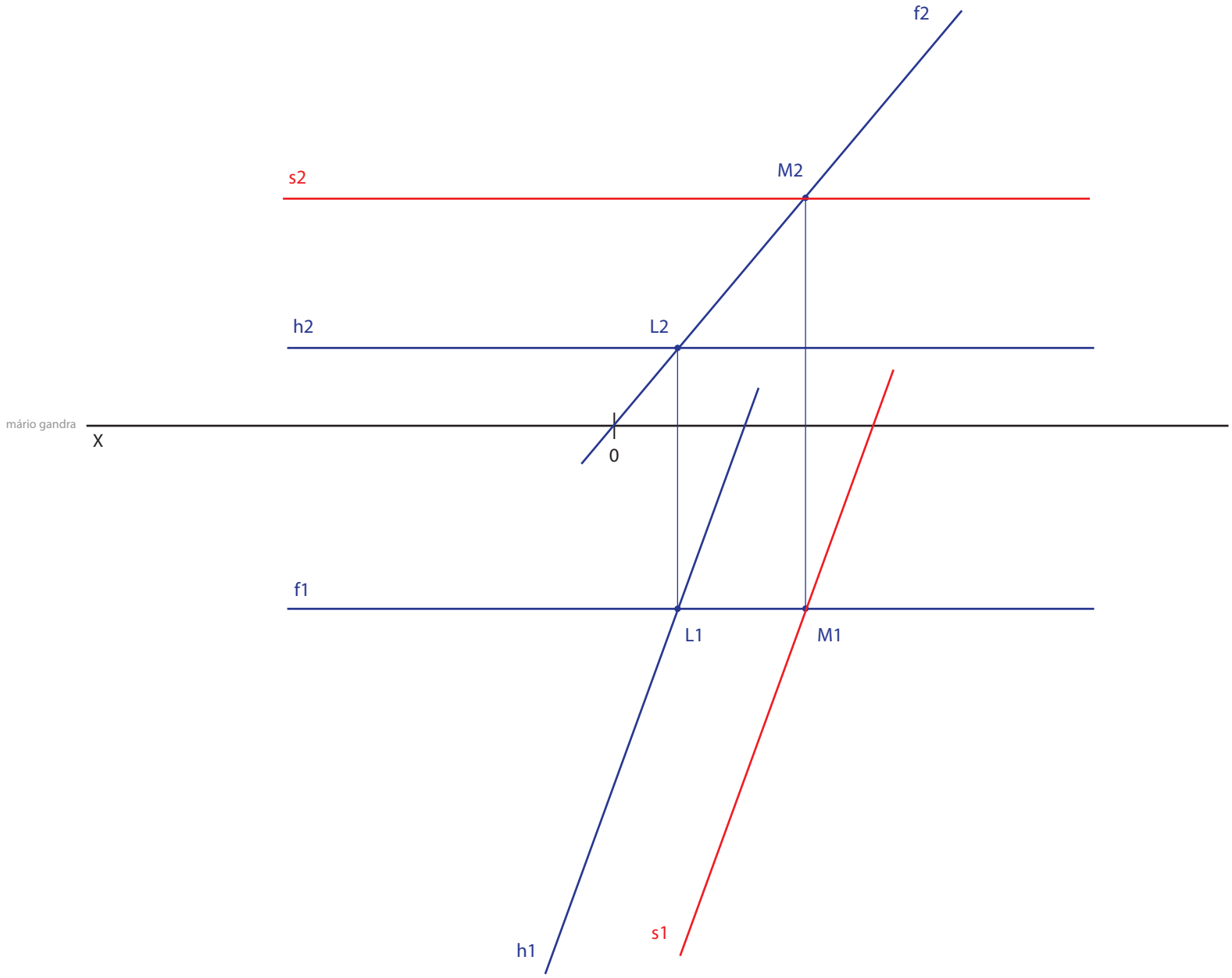


2

mário gandra



3



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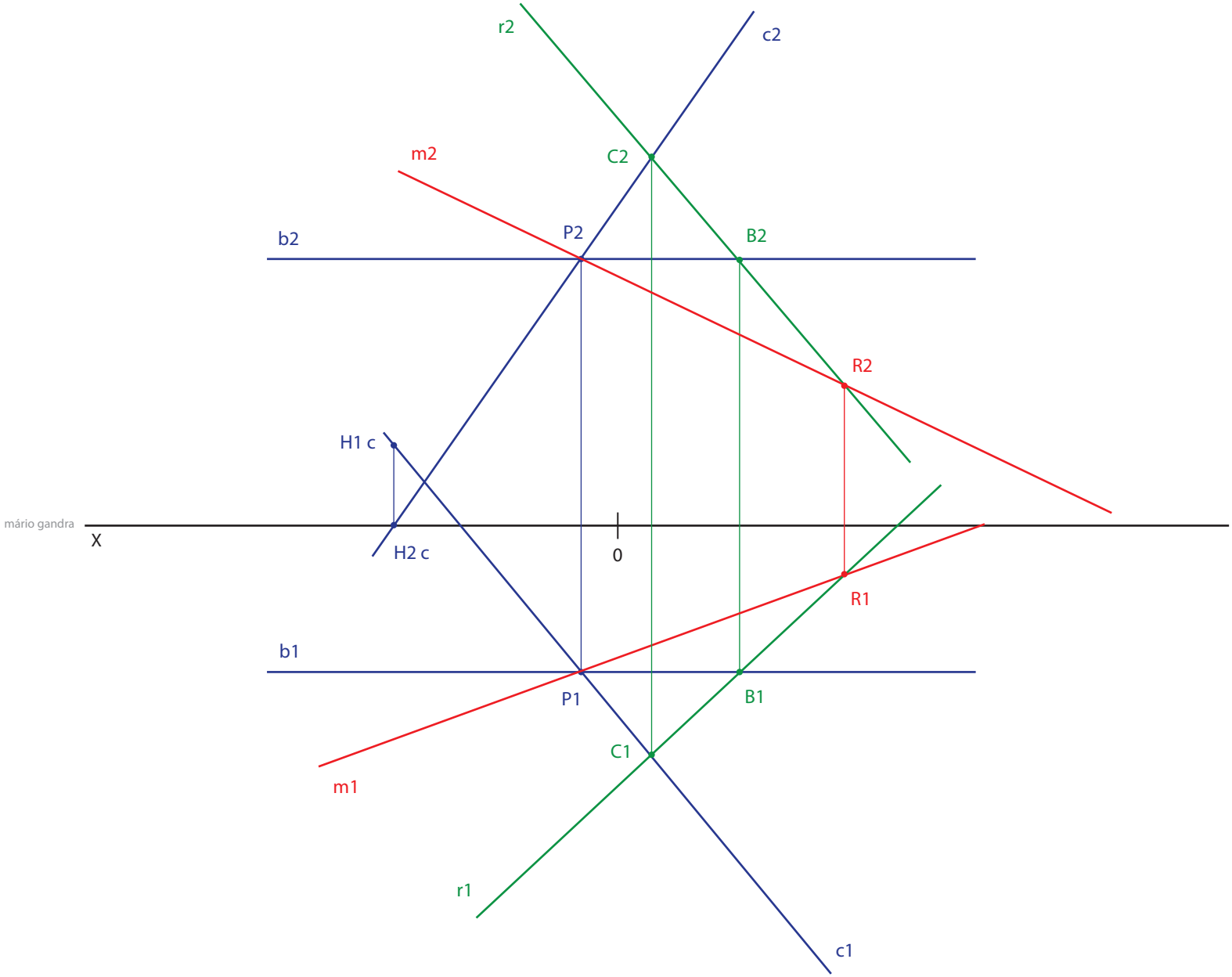
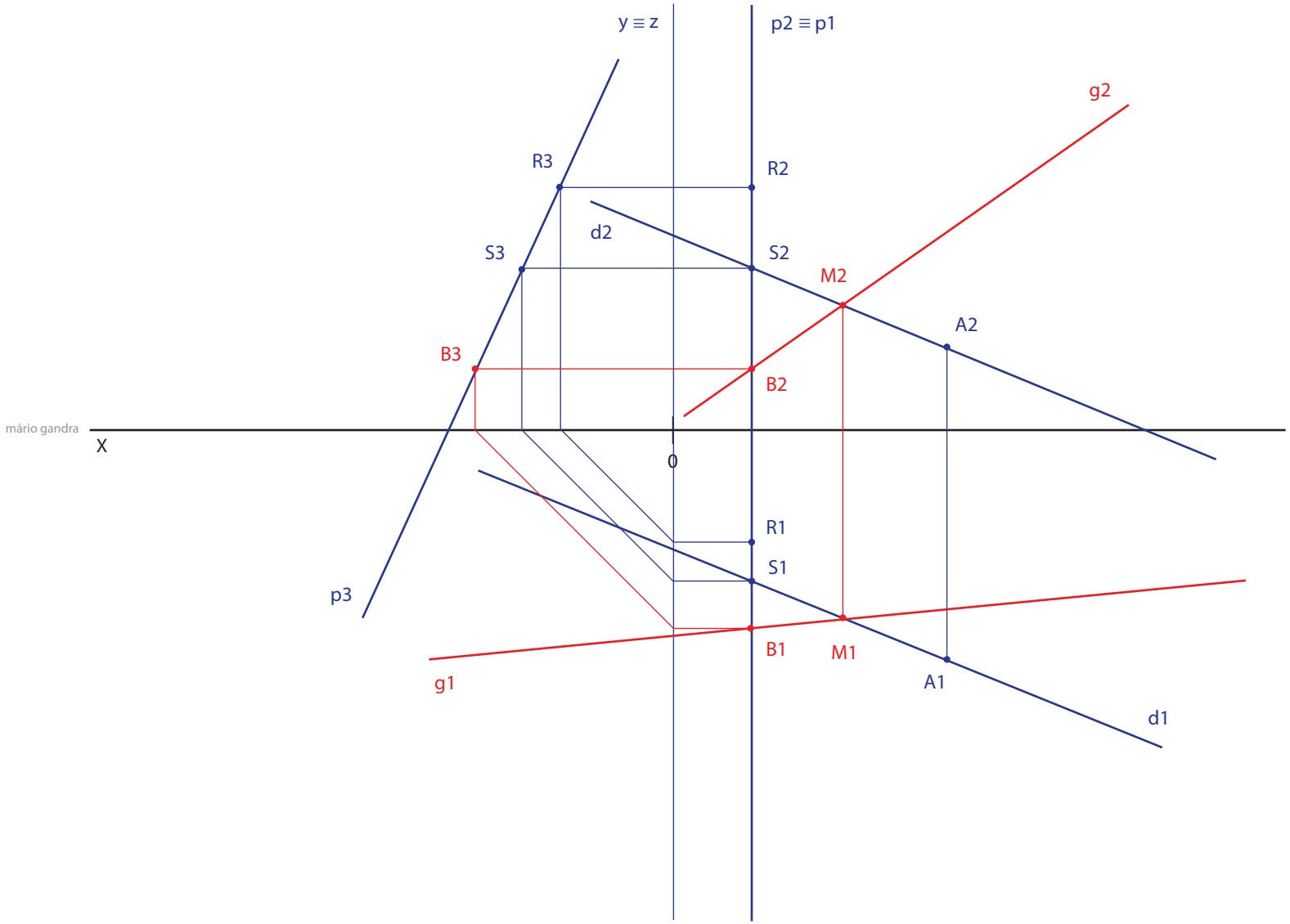
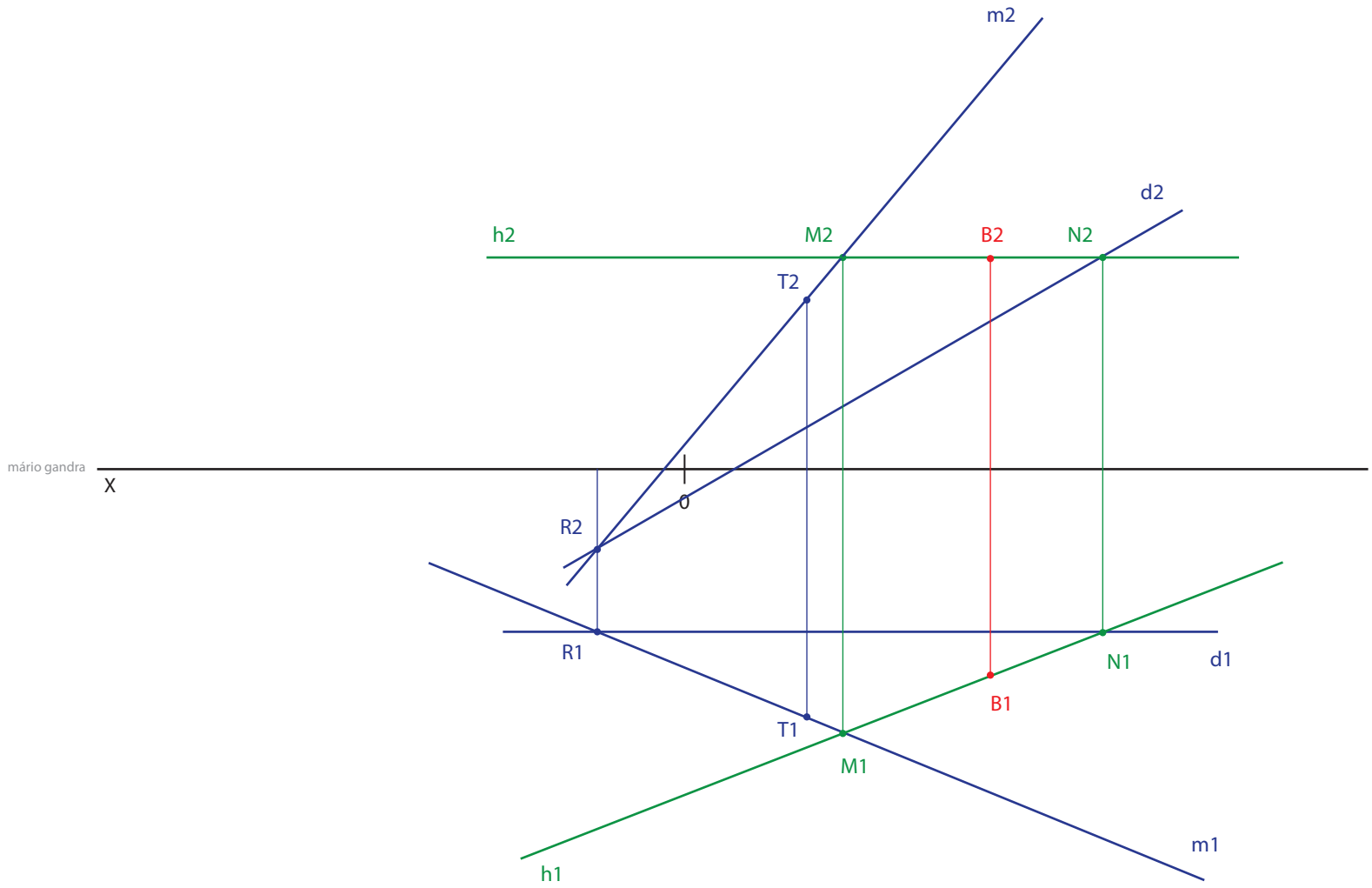

r2
c2
m2
C2
b2
P2
B2
R2
H1 c
mário gandra
X
H2 c
0
R1
b1
P1
B1
C1
m1
r1
c1

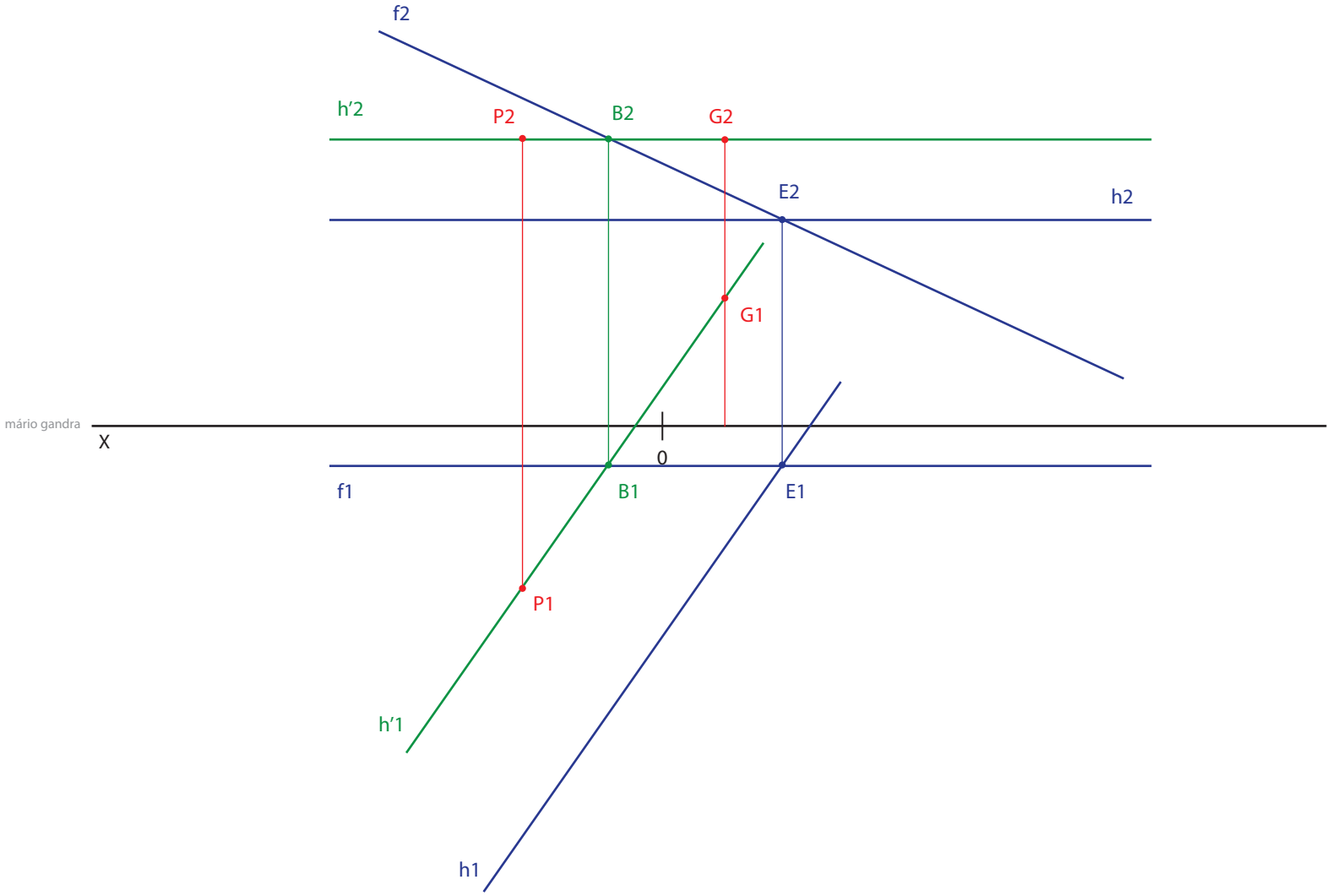
5

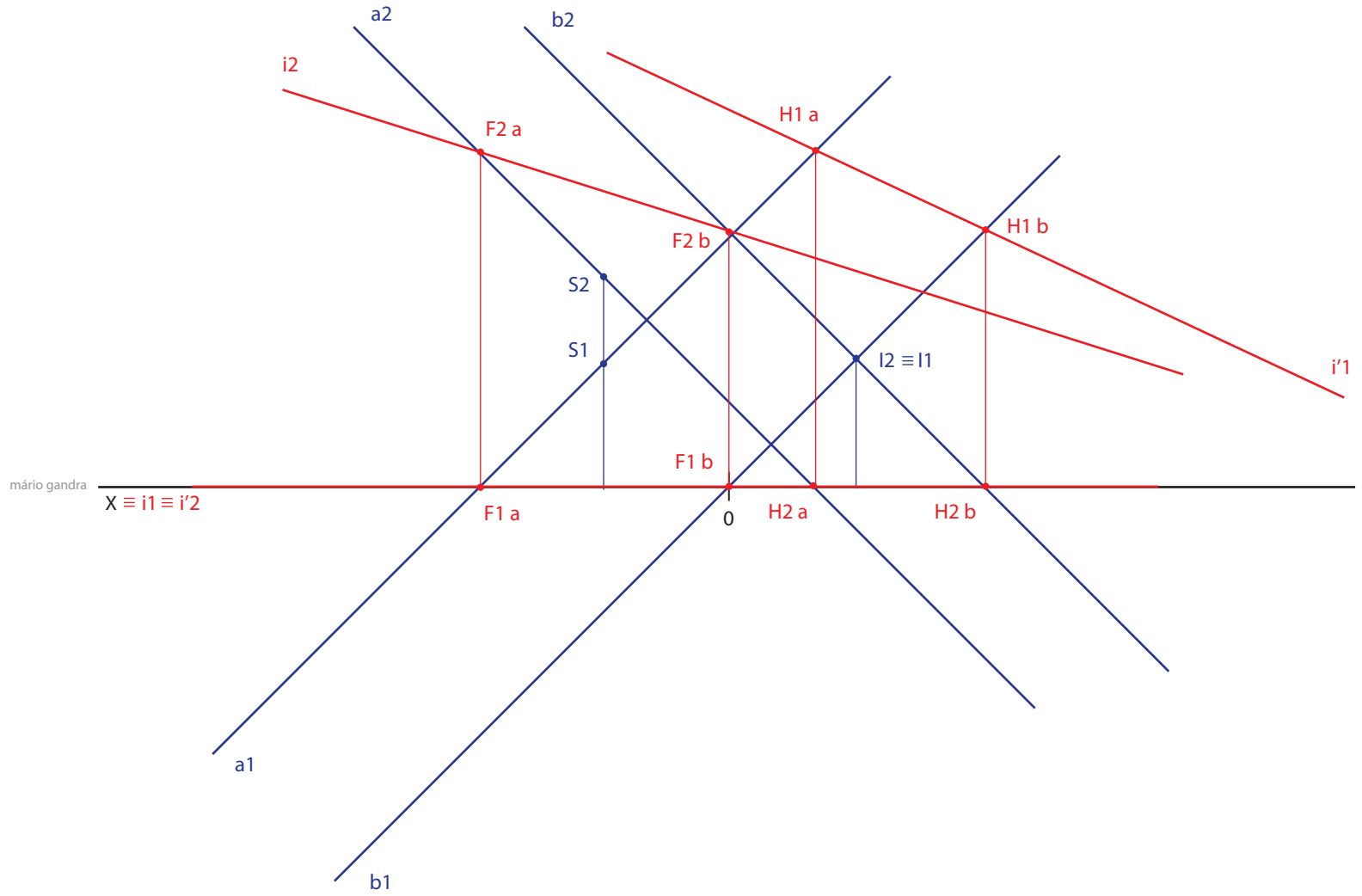

y ≡ z
p2 ≡ p1
g2
R3
R2
d2
S3
S2
M2
A2
B3
B2
mário gandra
X
0
R1
S1
p3
B1
M1
A1
g1
d1

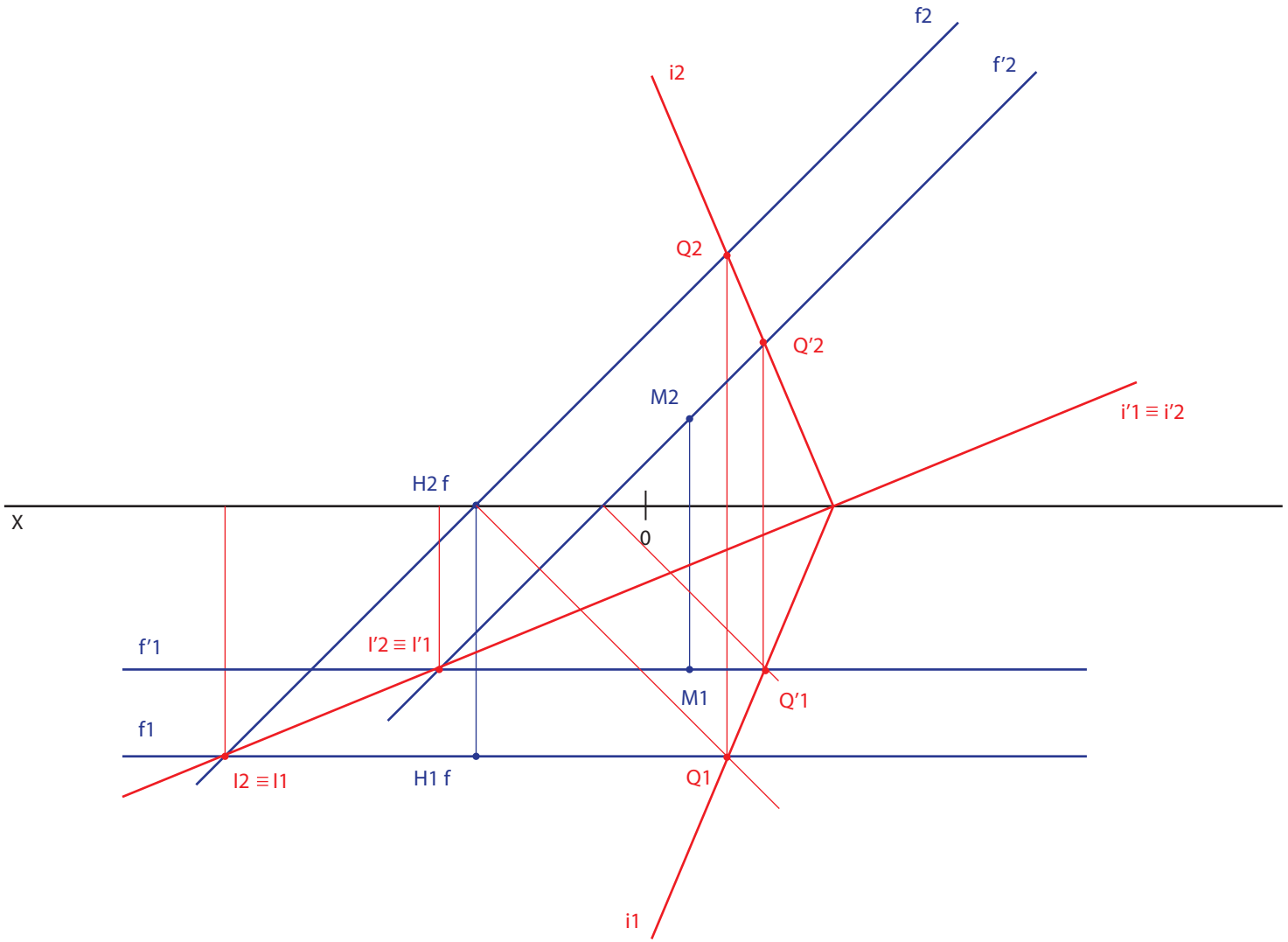
6



7

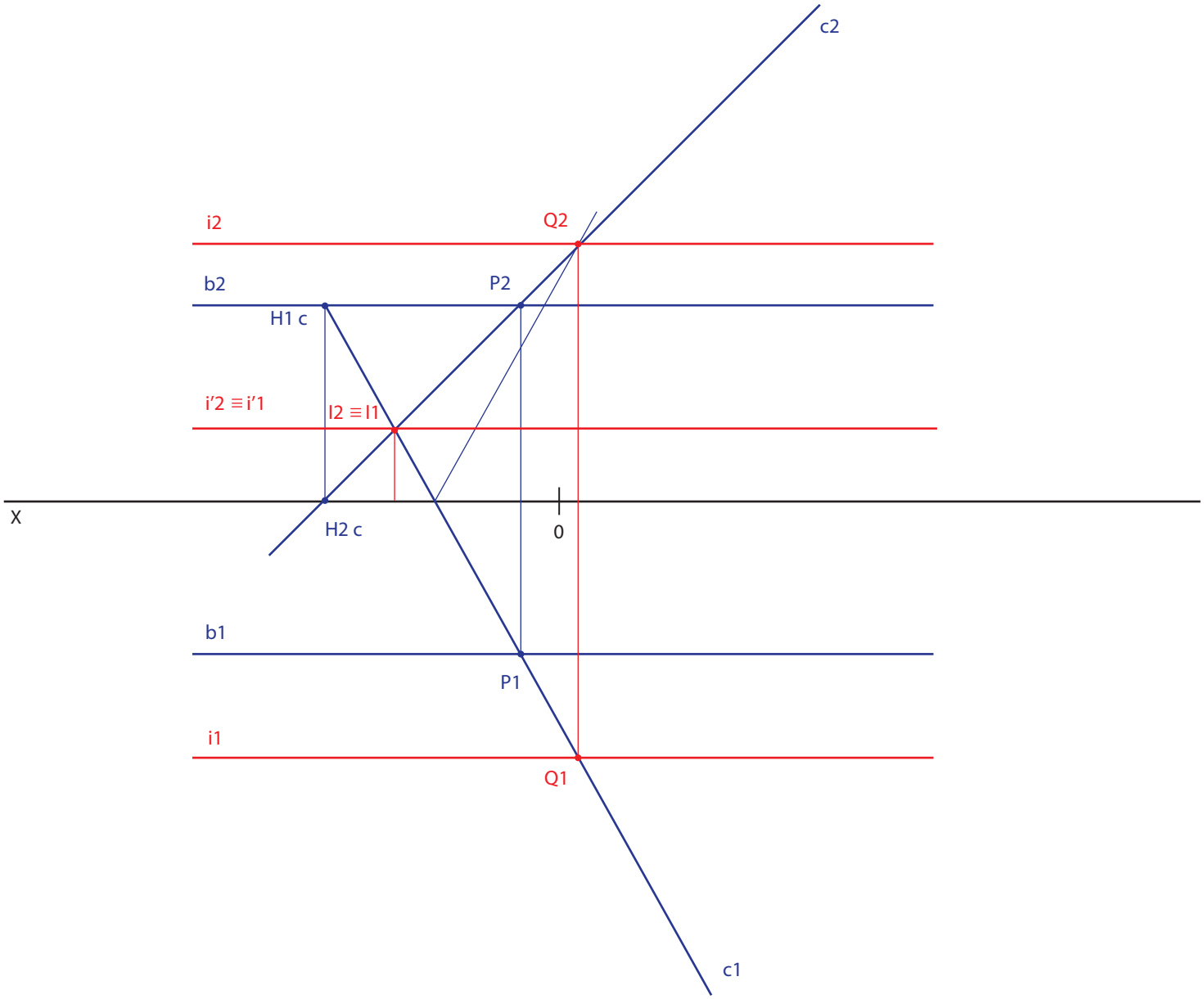


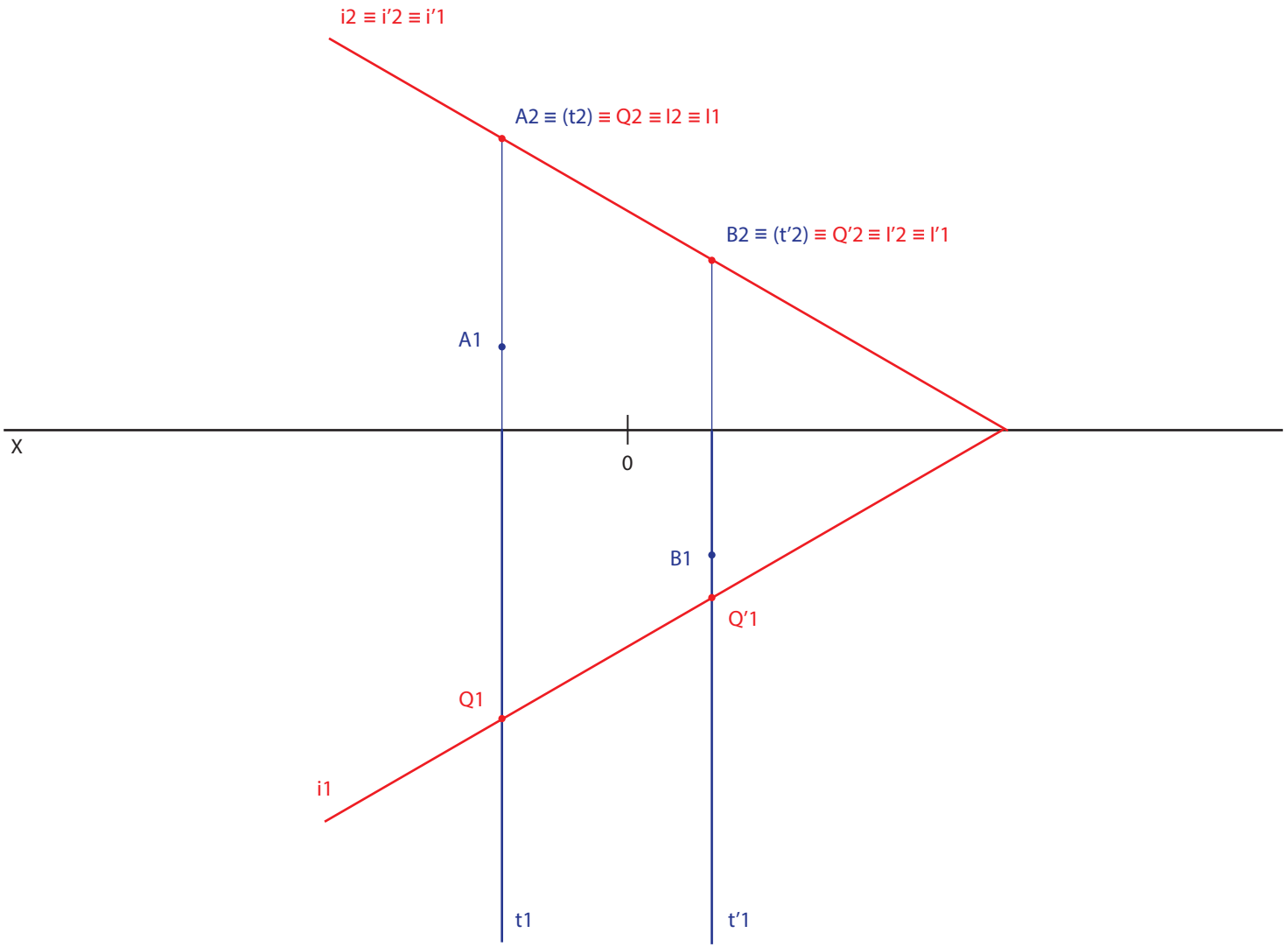


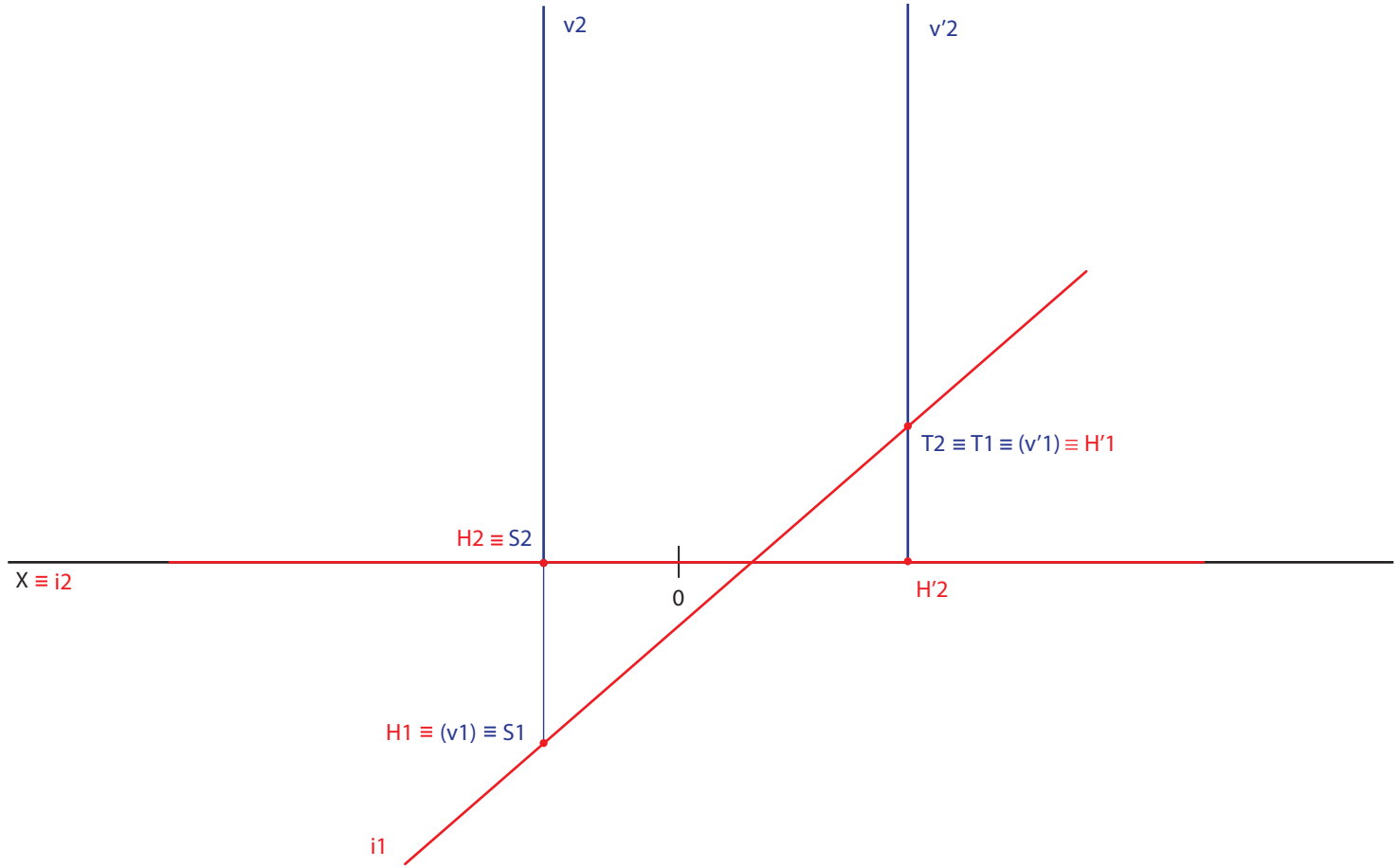


10

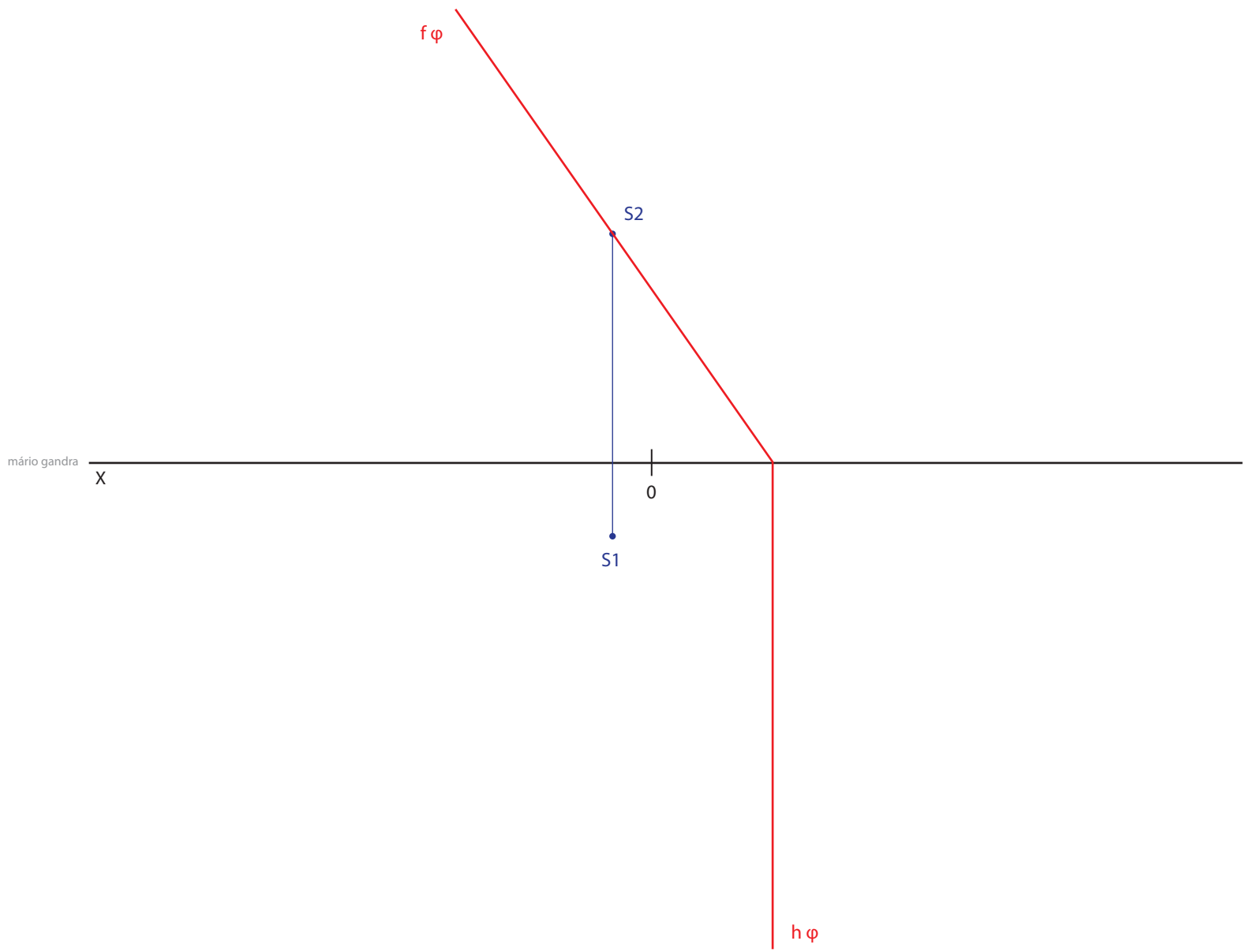
mário gandra

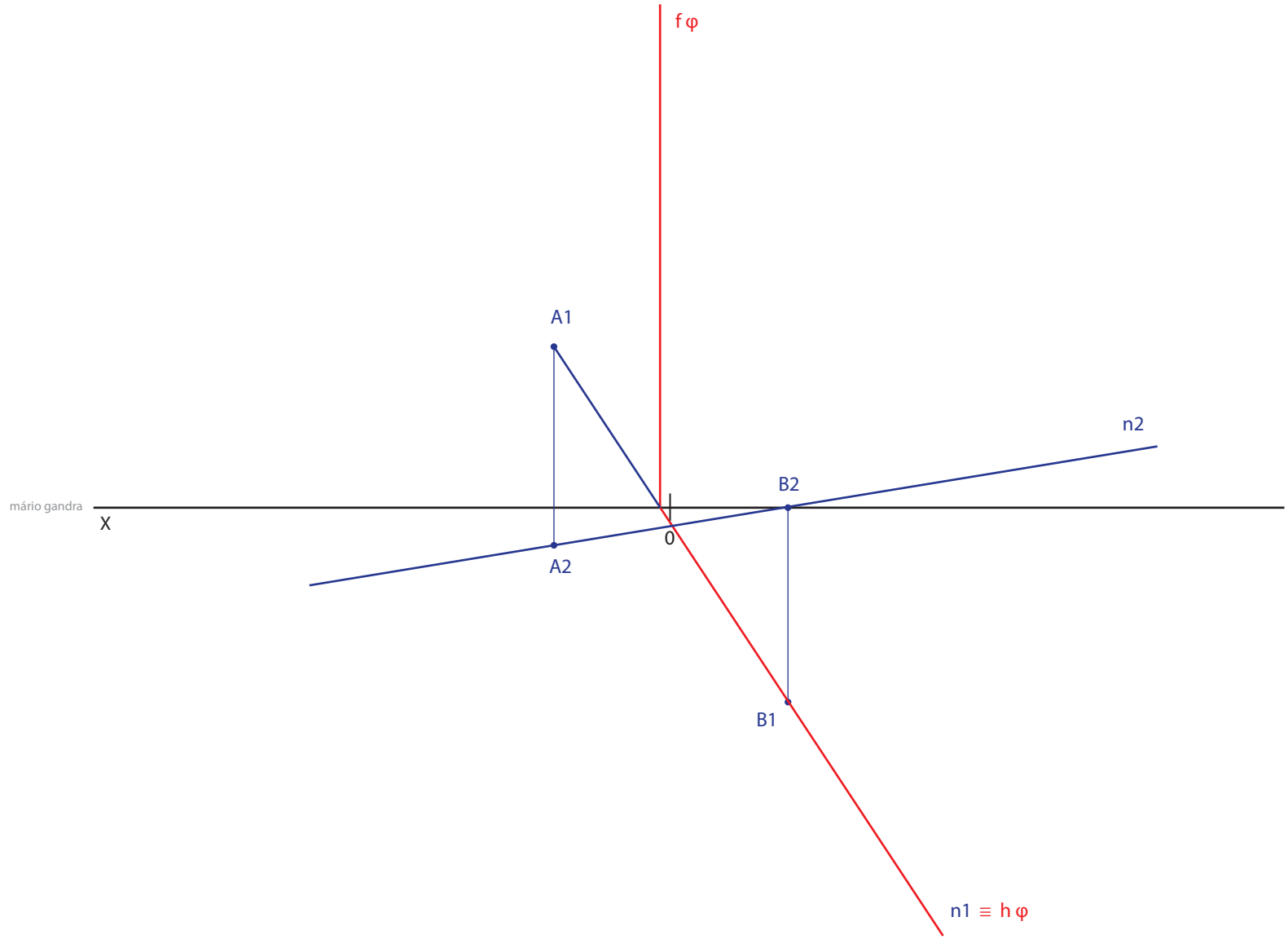



i2 ≡ i'2 ≡ i'1
A2 ≡ (t2) ≡ Q2 ≡ I2 ≡ I1
B2 ≡ (t'2) ≡ Q'2 ≡ I'2 ≡ I'1
A1
X
0
B1
Q'1
Q1
i1
t1
t'1

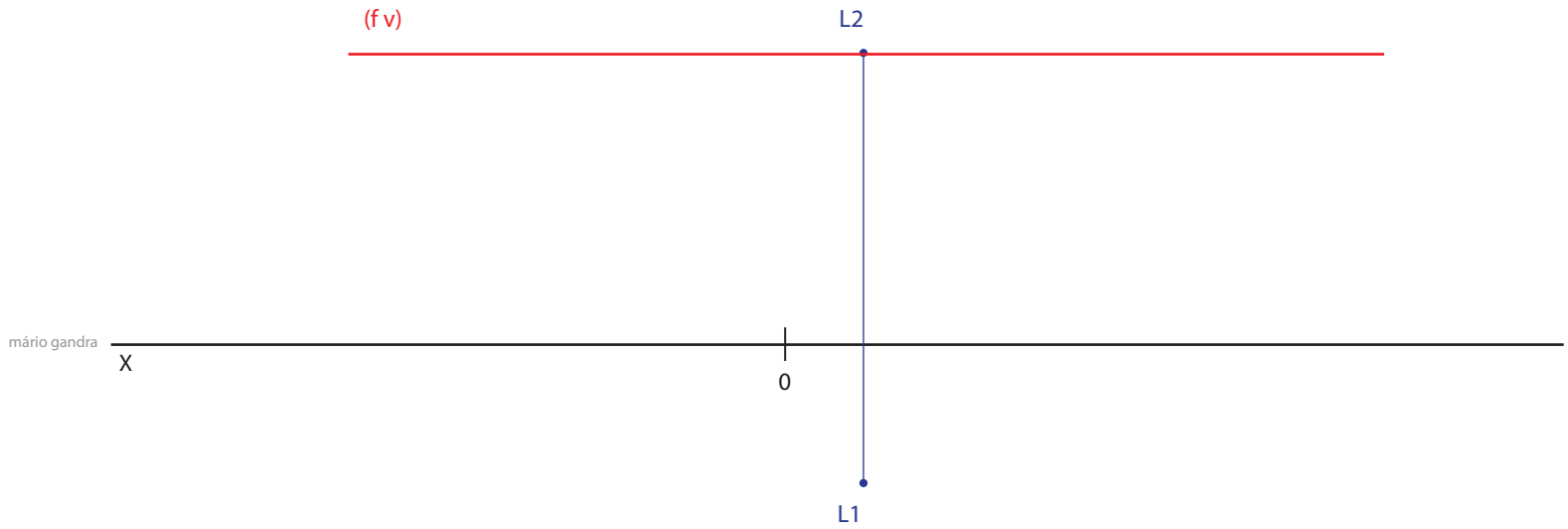

v2
v'2
T2 ≡ T1 ≡ (v'1) ≡ H'1
H2 ≡ S2
X ≡ i2
0
H'2
H1 ≡ (v1) ≡ S1
i1

13



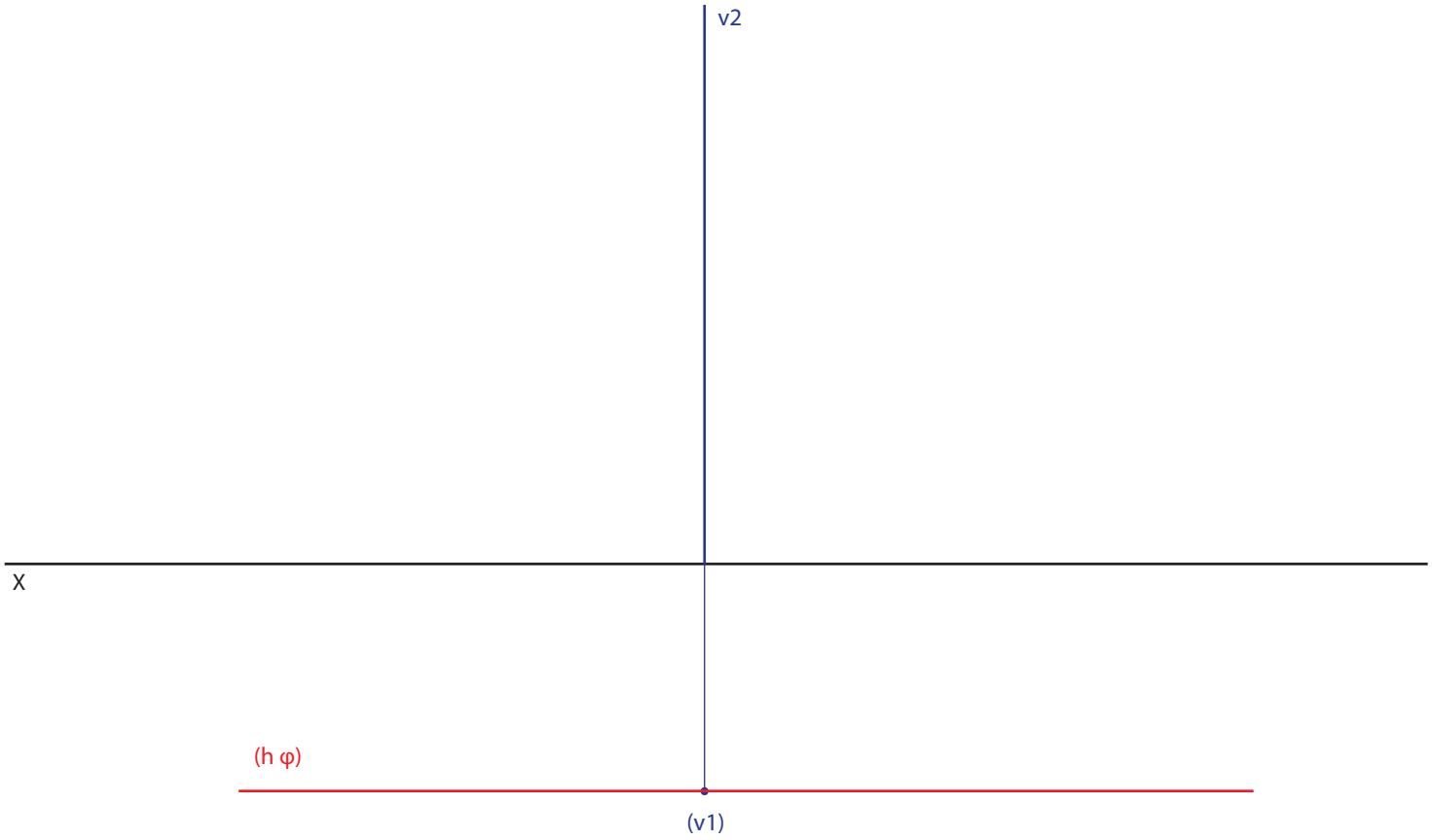

f φ
A1
n2
B2
X
0
A2
B1
n1 ≡ h φ

15



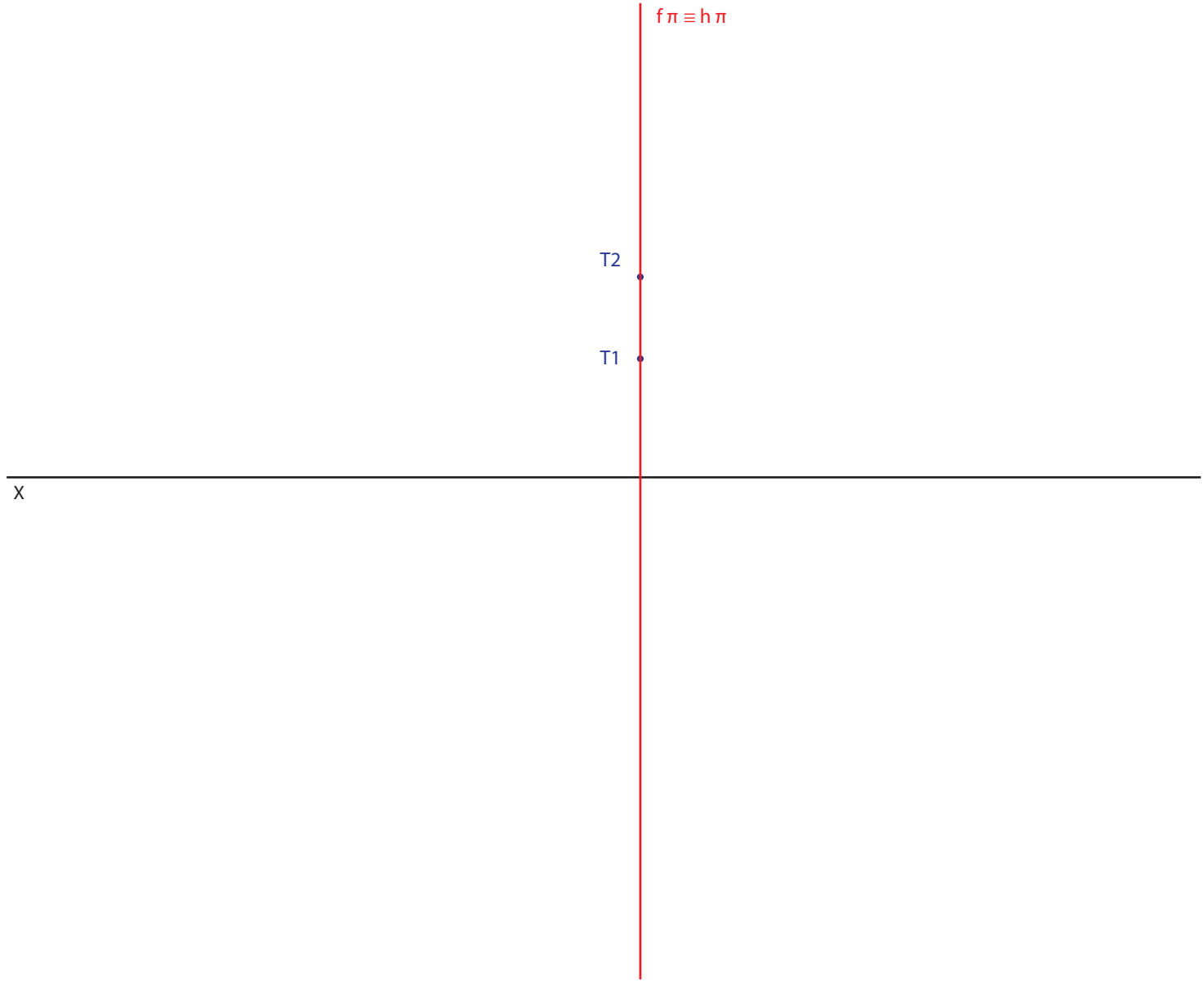
16

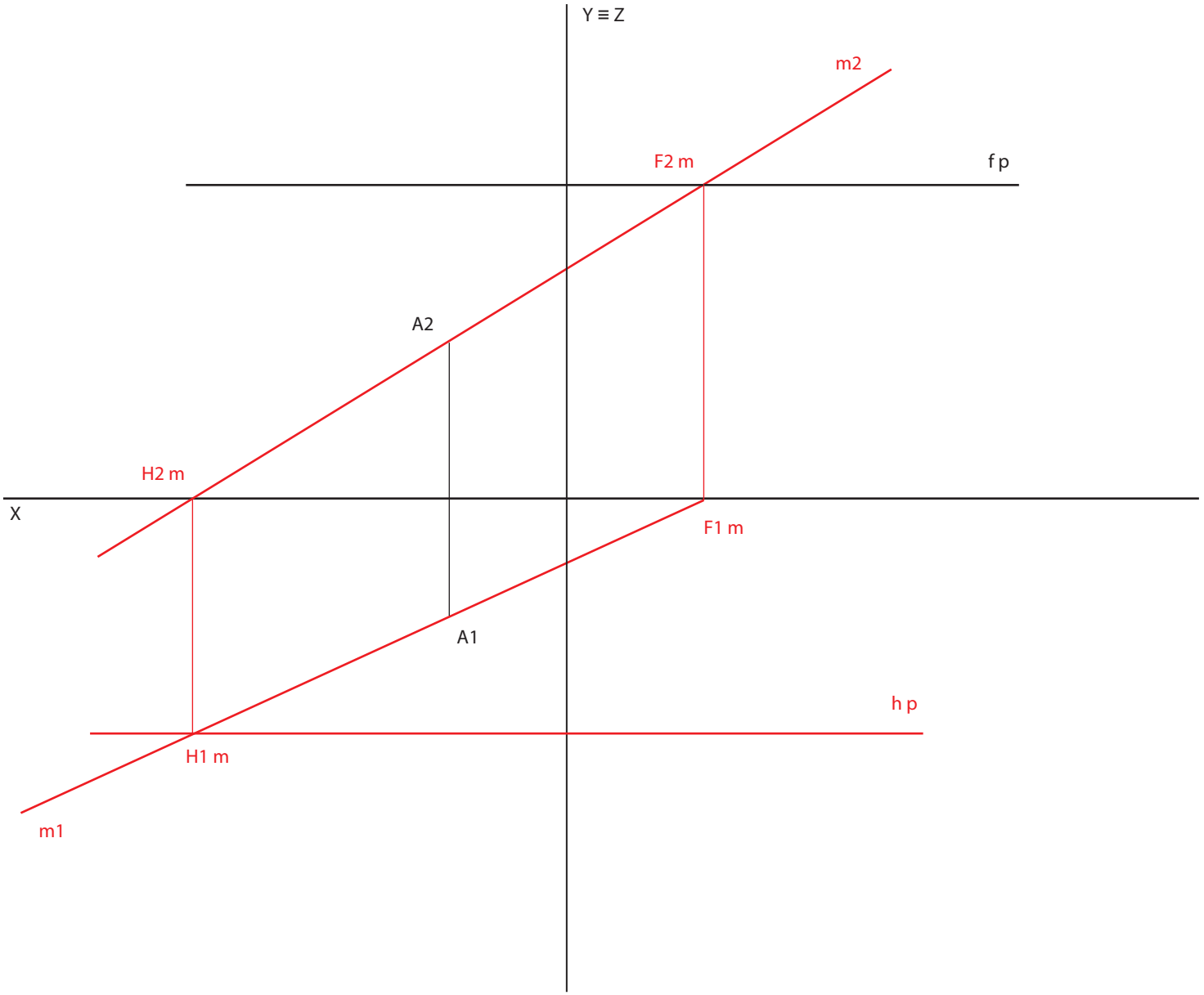
mário gandra

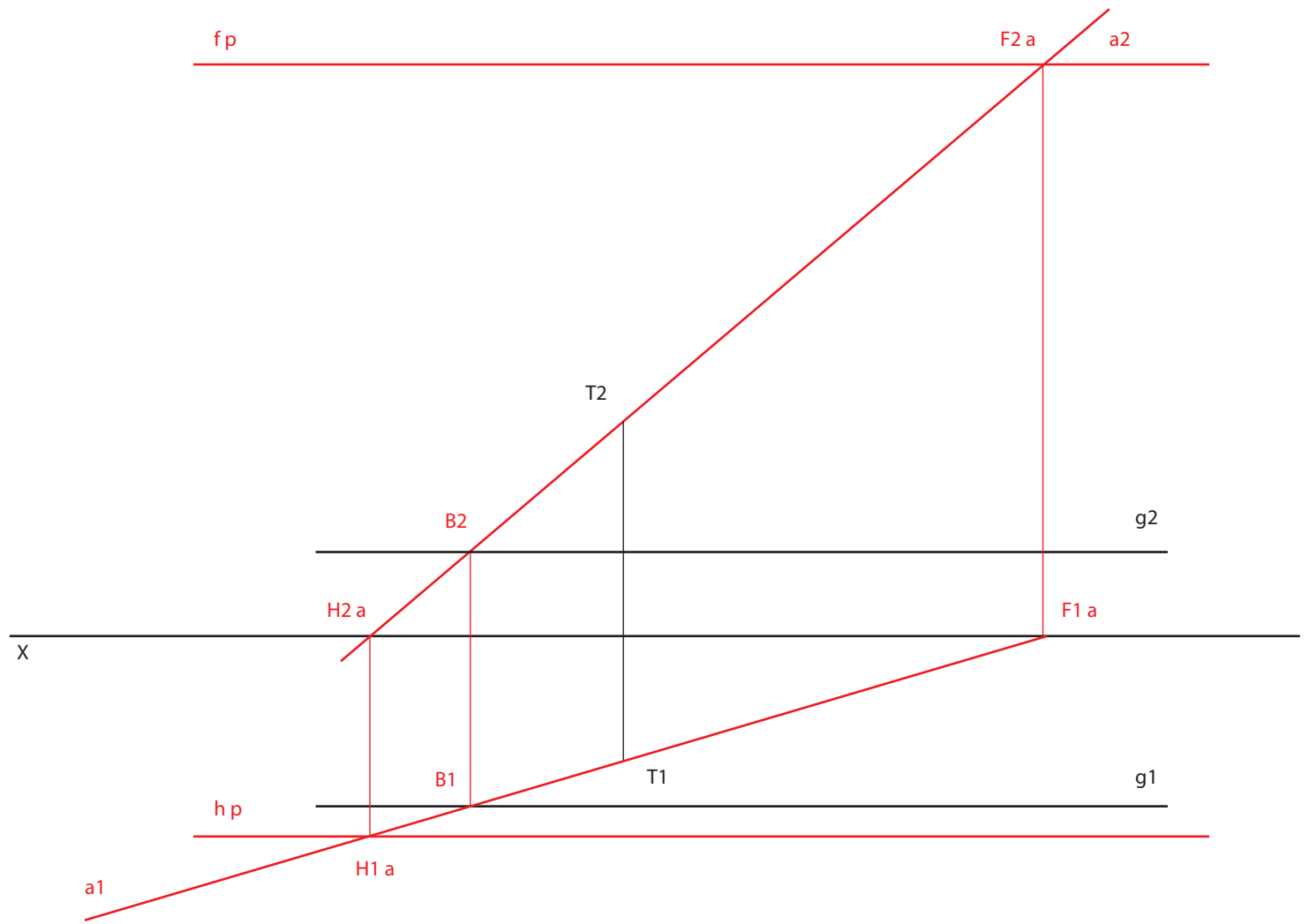


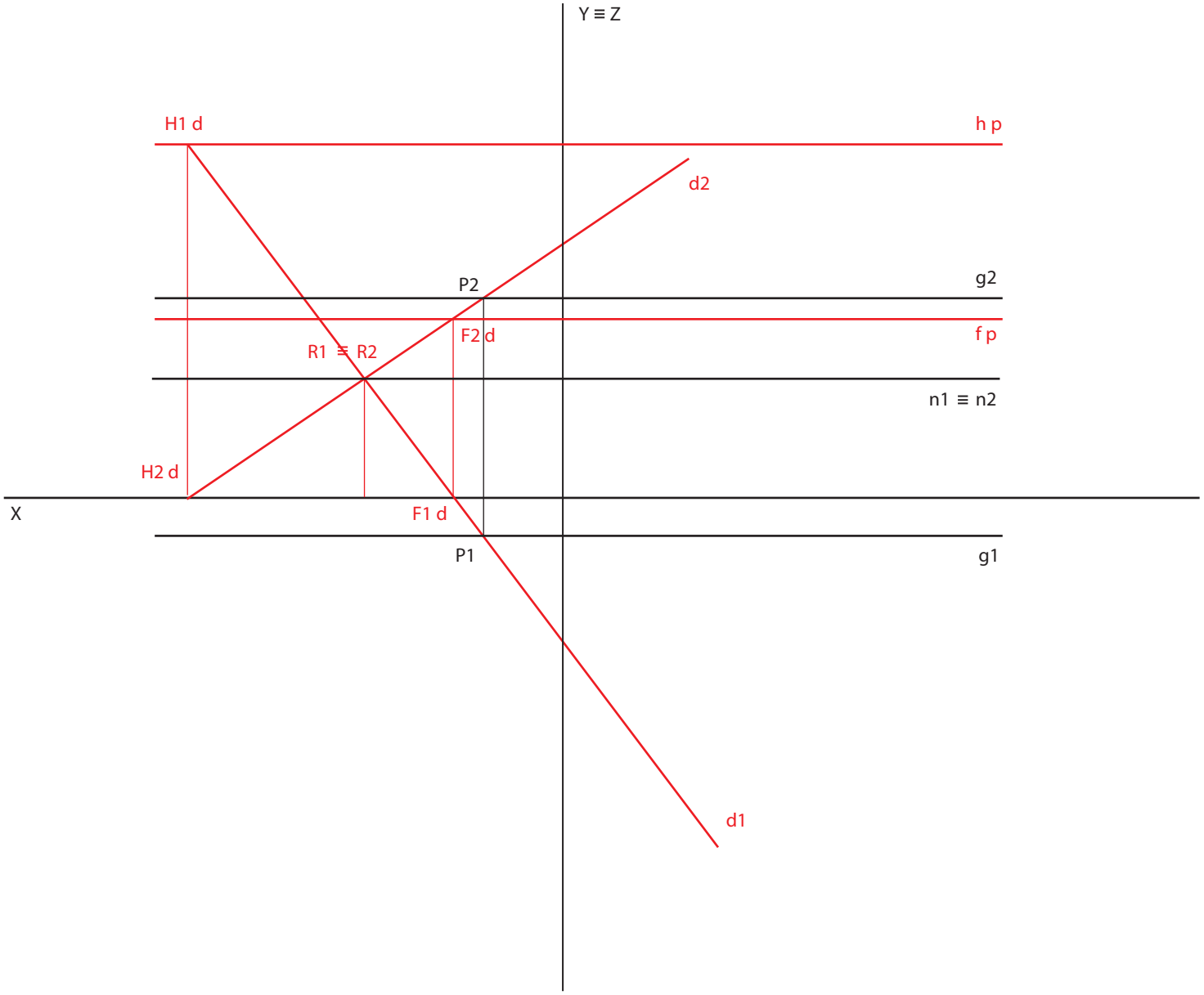
17

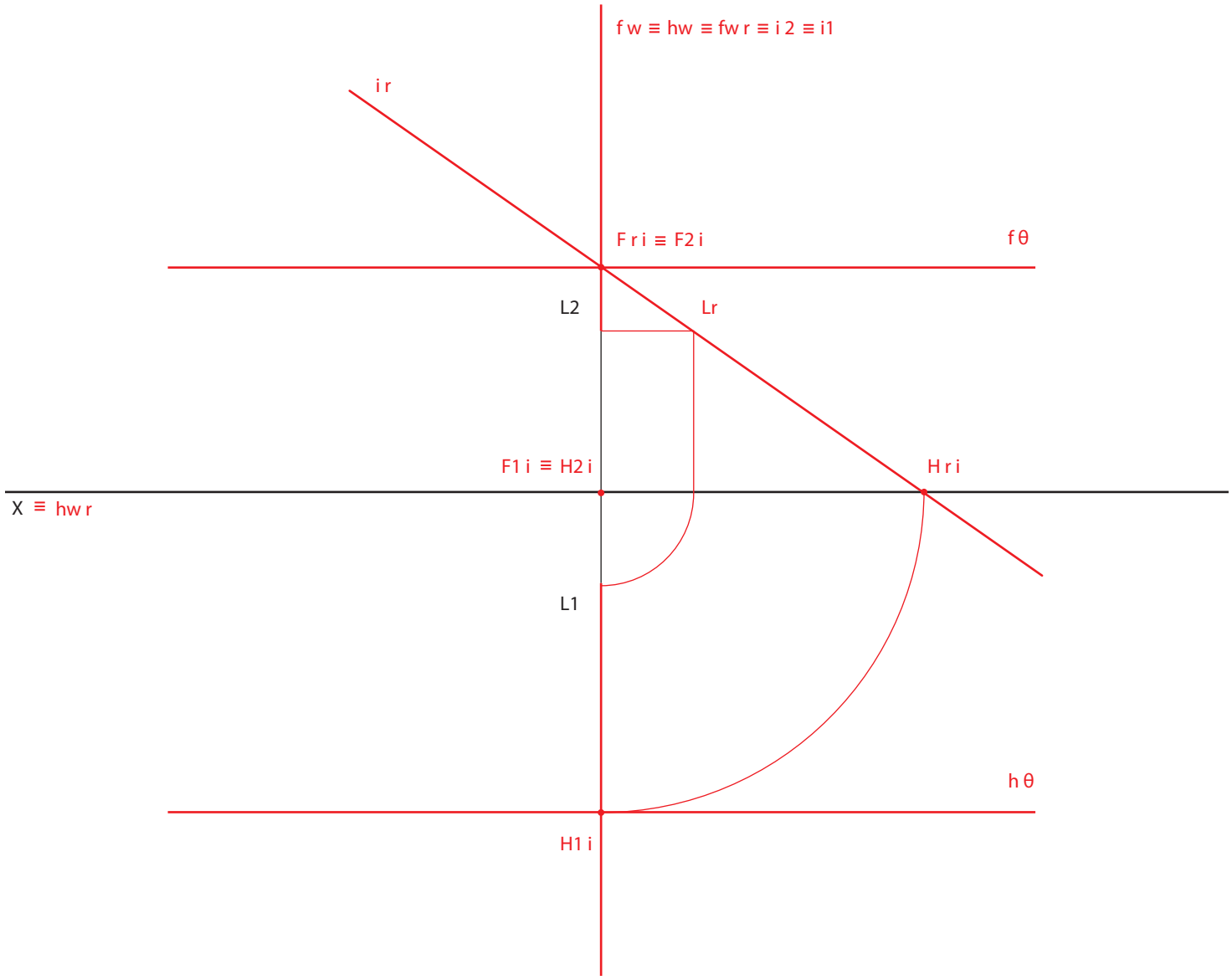
mário gandra

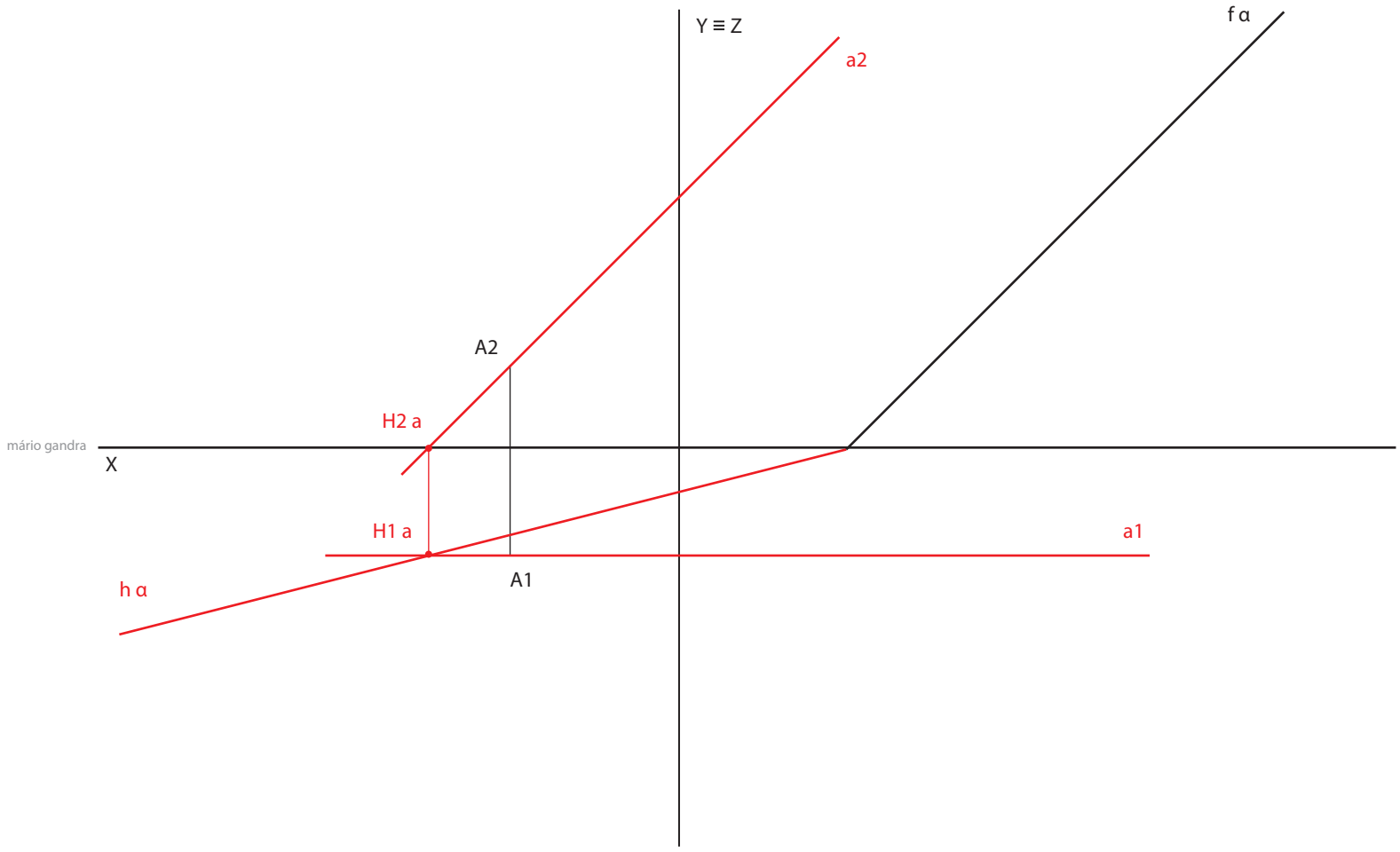


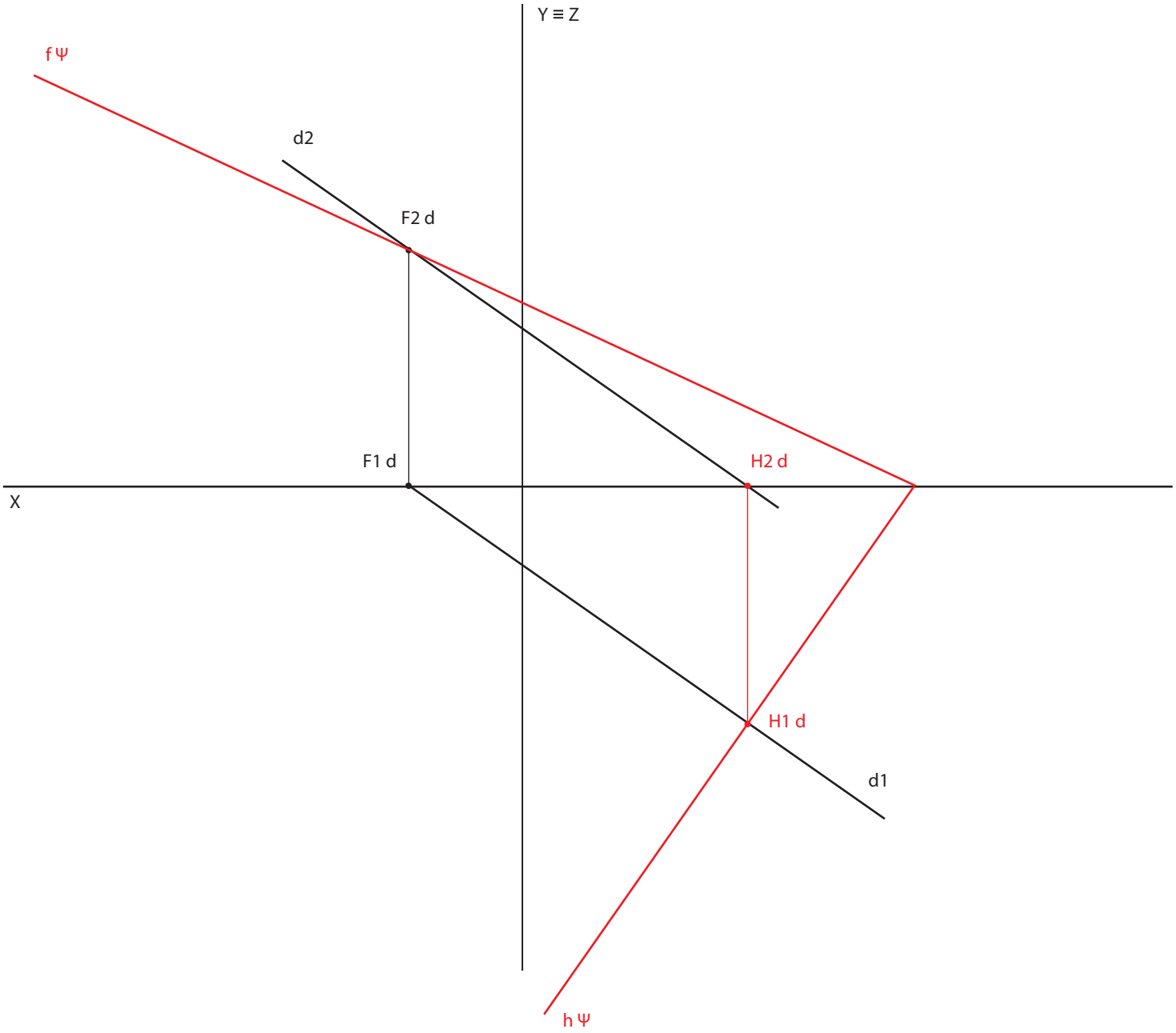

Y ≡ Z
m2
F2 m
f p
A2
H2 m
X
F1 m
A1
h p
H1 m
m1

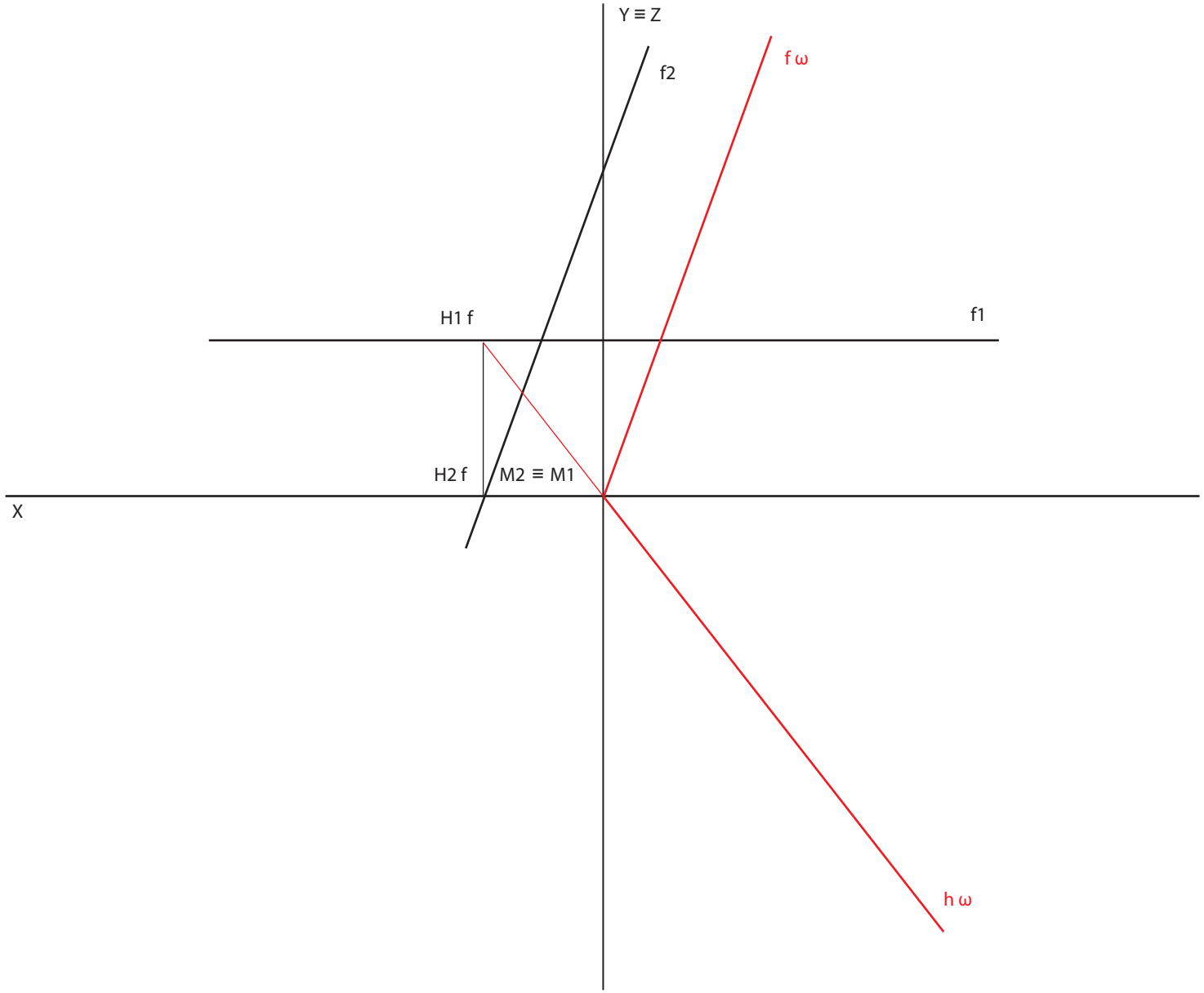

f p
F2 a
a2
T2
B2
g2
H2 a
F1 a
X
B1
T1
g1
h p
H1 a
a1

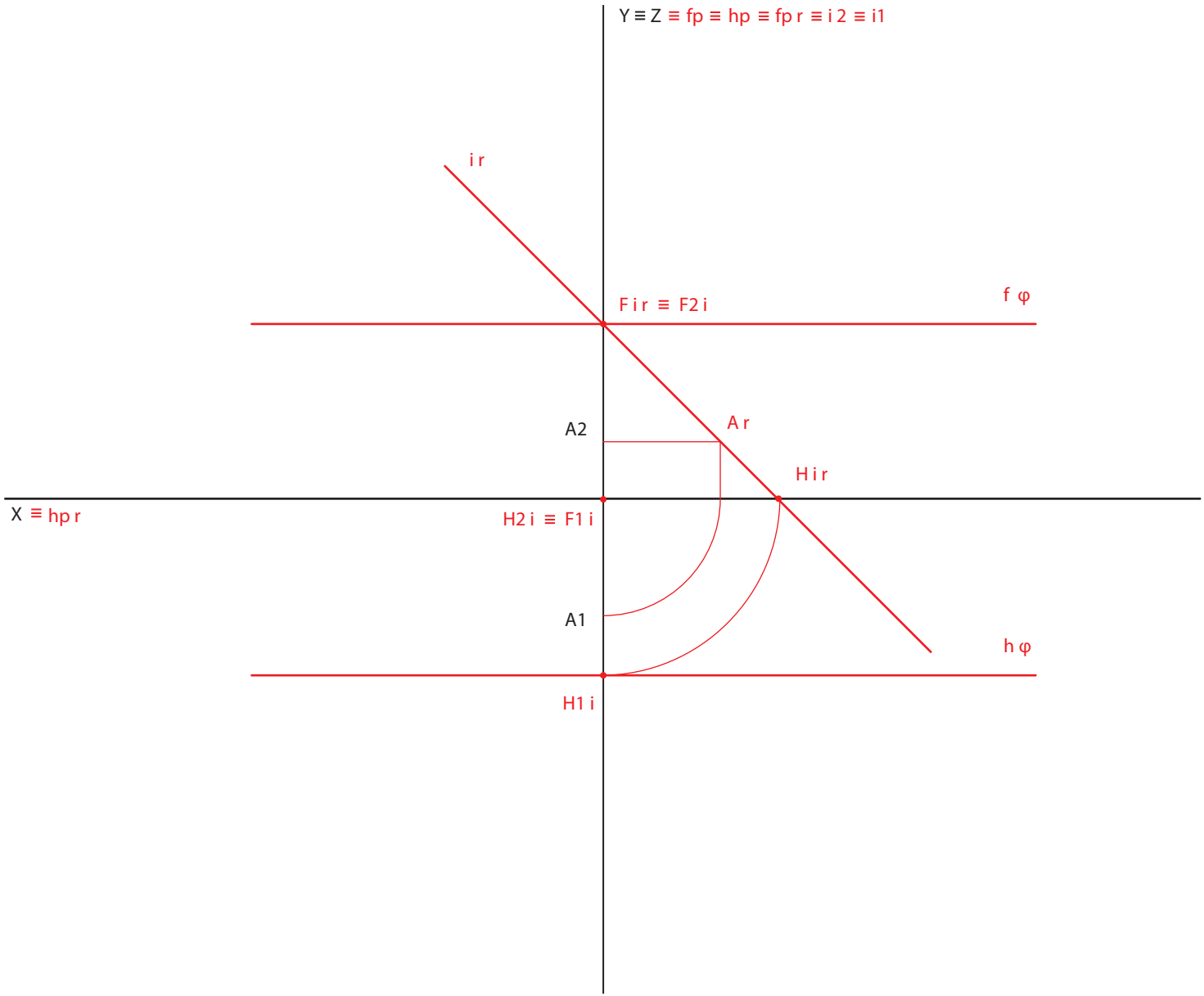

Y ≡ Z
H1 d
h p
d2
P2
g2
F2 d
f p
R1 ≡ R2
n1 ≡ n2
H2 d
X
F1 d
P1
g1
d1

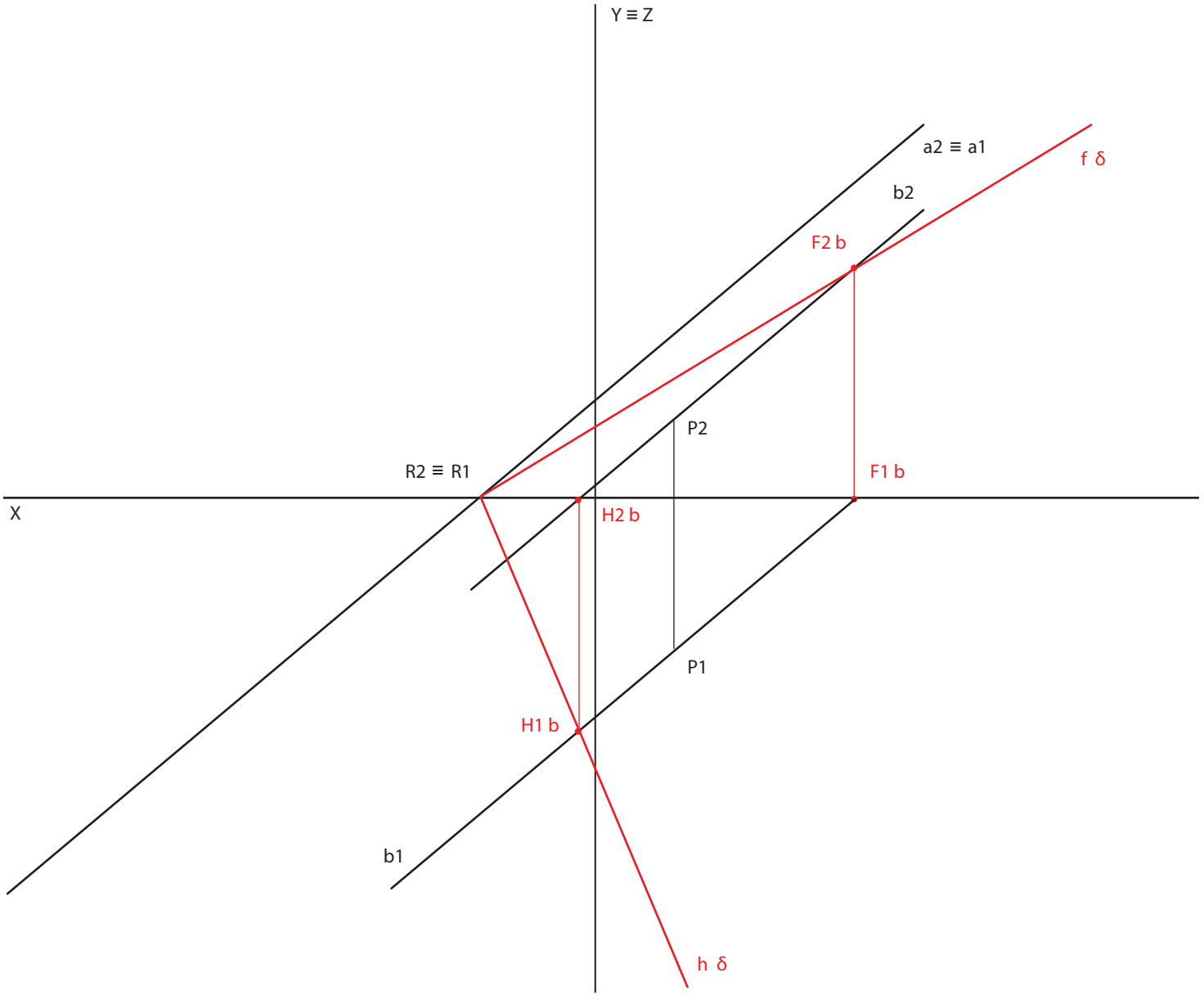

f w ≡ hw ≡ fw r ≡ i 2 ≡ i1
i r
F r i ≡ F2 i
f θ
L2
Lr
F1 i ≡ H2 i
H r i
X ≡ hw r
L1
h θ
H1 i

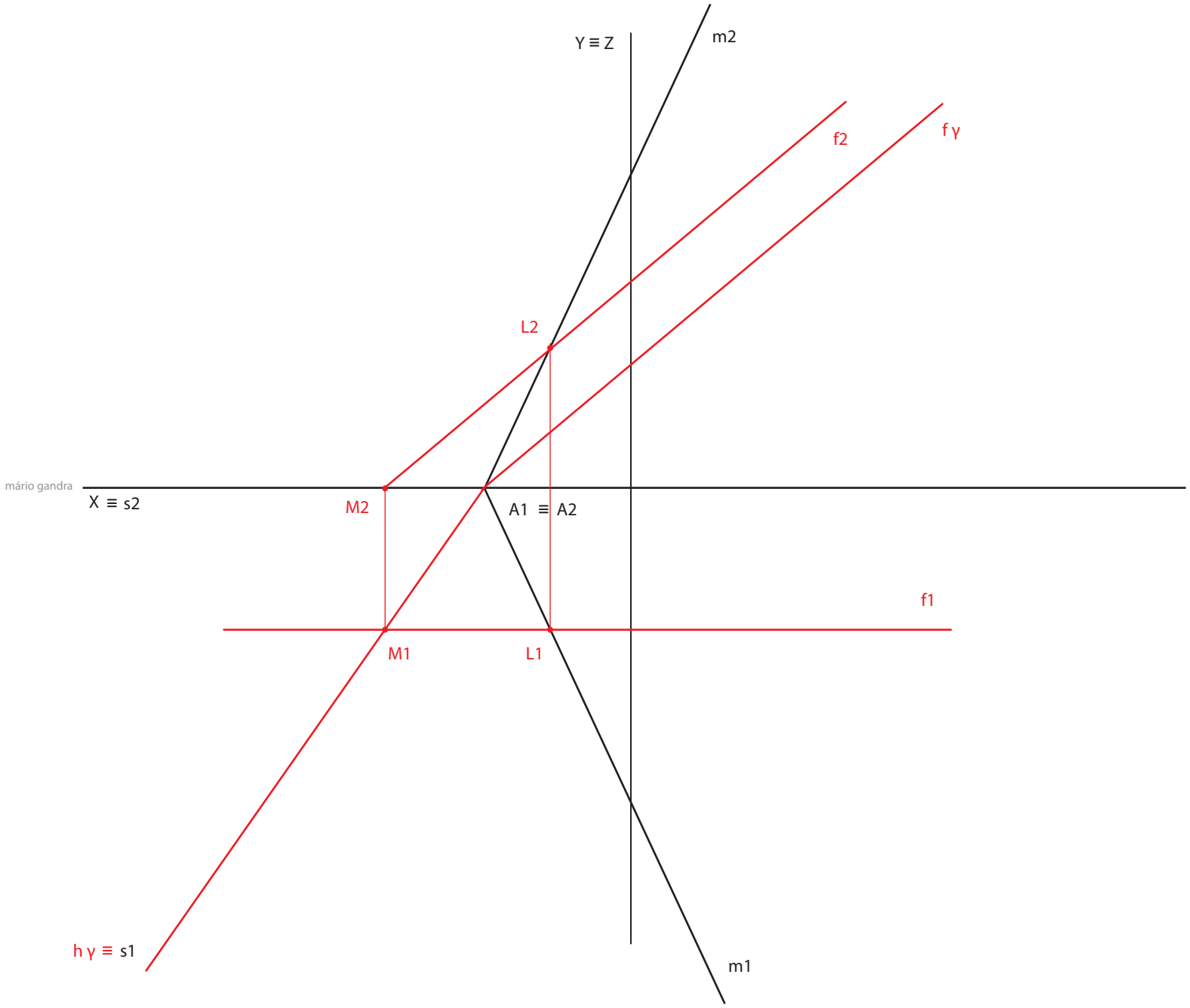


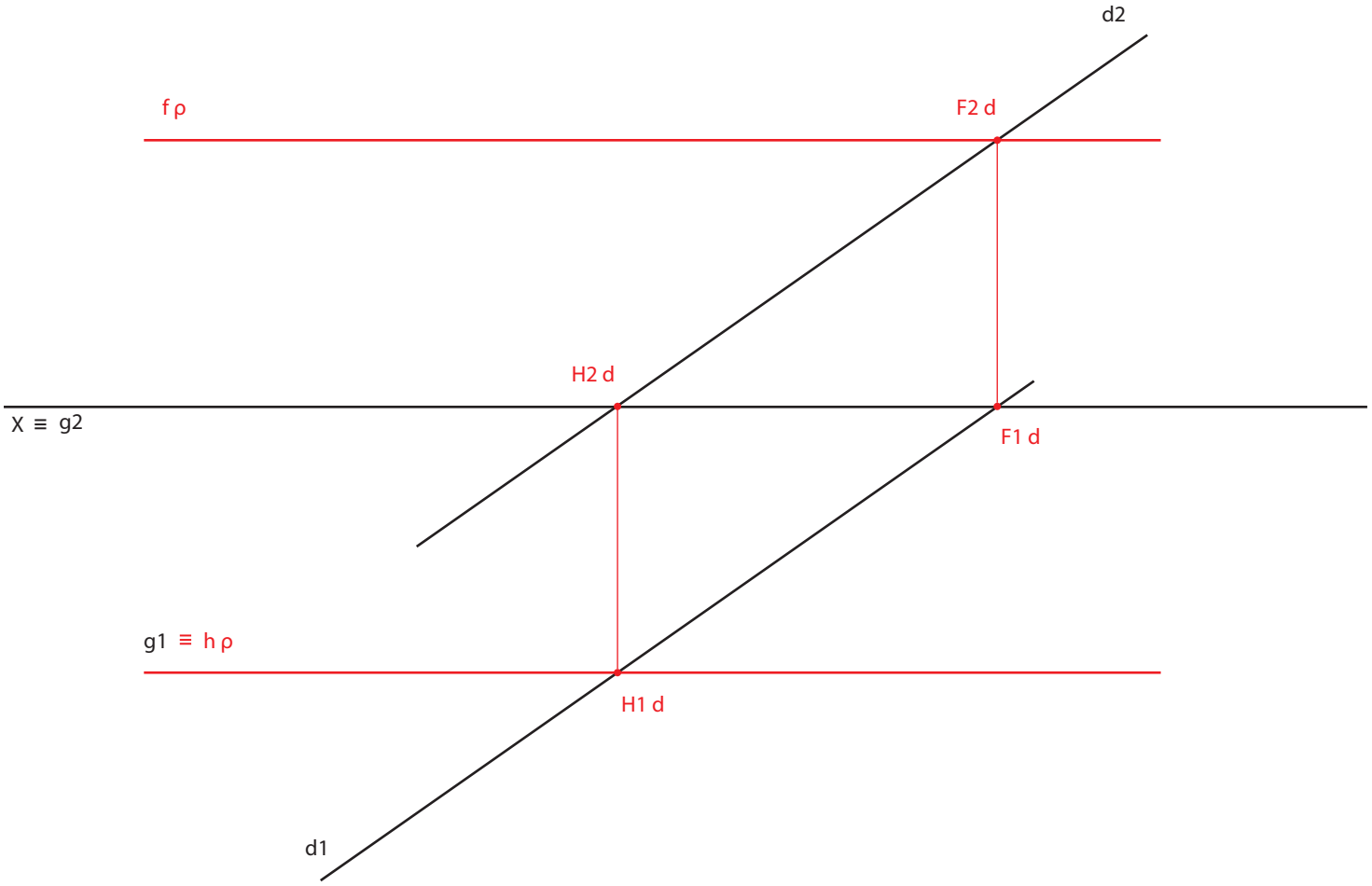

Y ≡ Z
f Ψ
d2
F2 d
F1 d
H2 d
X
H1 d
d1
h Ψ

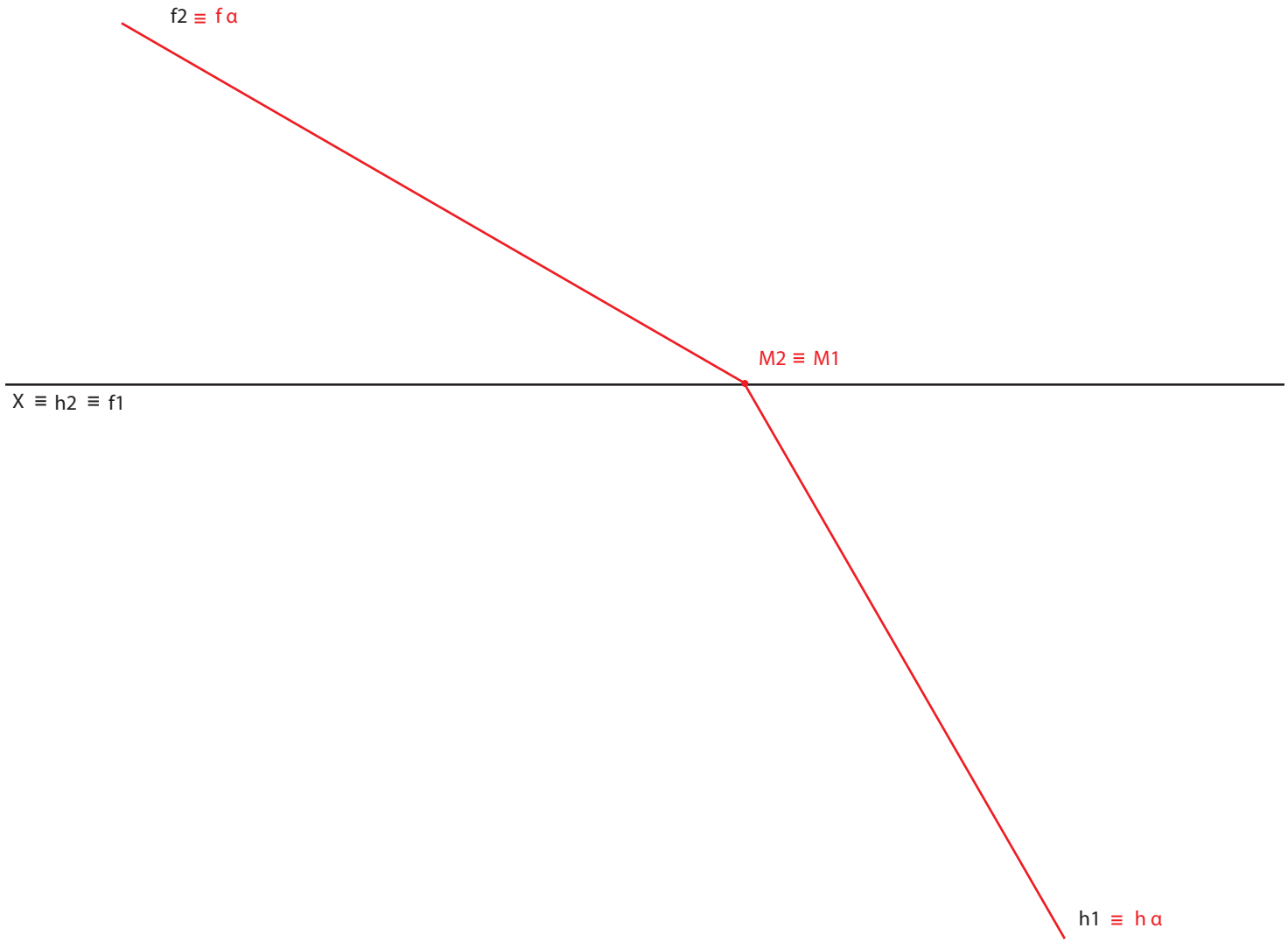

Y ≡ Z
f2
f ω
H1 f
f1
H2 f
M2 ≡ M1
X
h ω

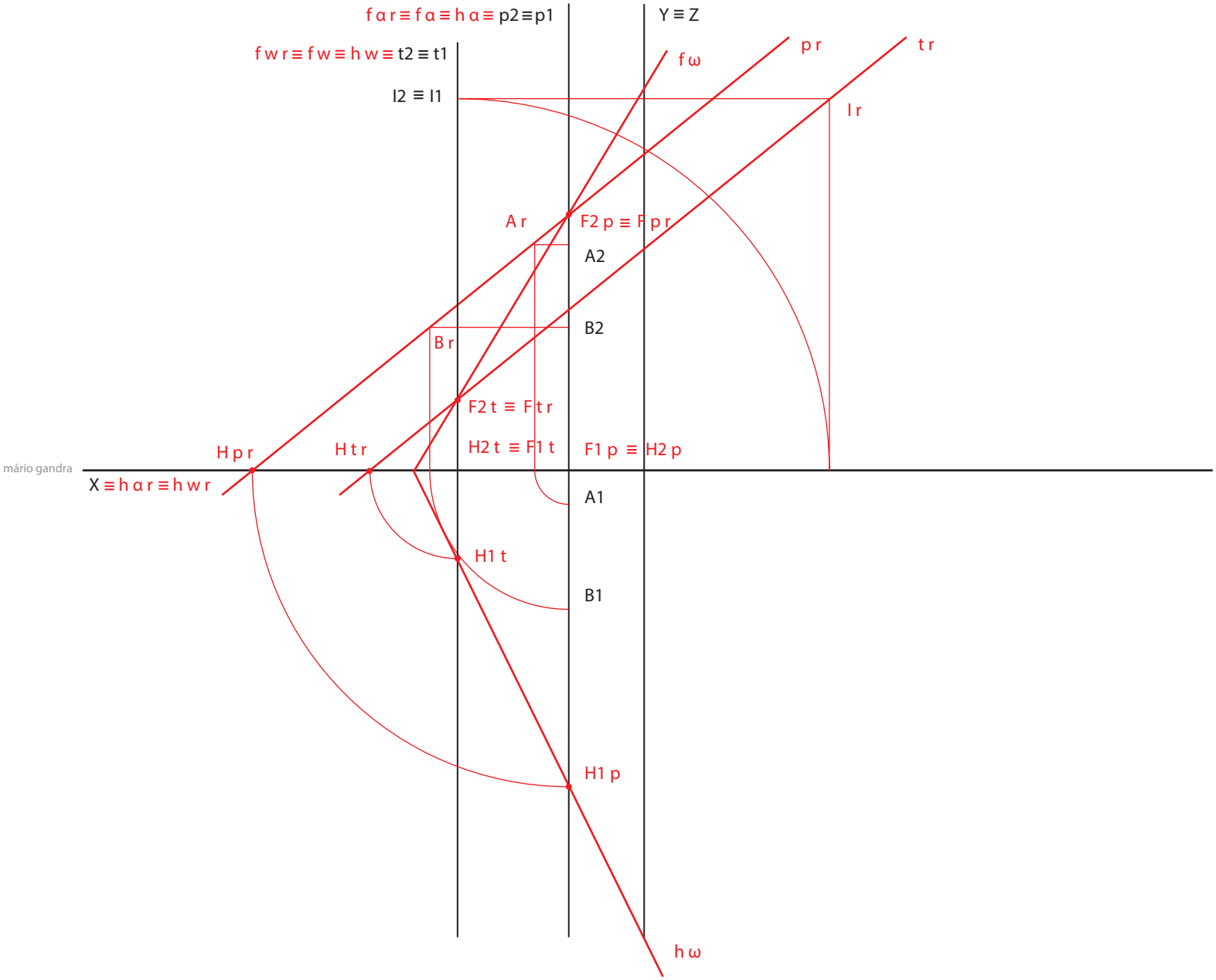

Y ≡ Z ≡ fp ≡ hp ≡ fp r ≡ i 2 ≡ i1
i r
F i r ≡ F2 i
f φ
A2
A r
H i r
X ≡ hp r
H2 i ≡ F1 i
A1
h φ
H1 i

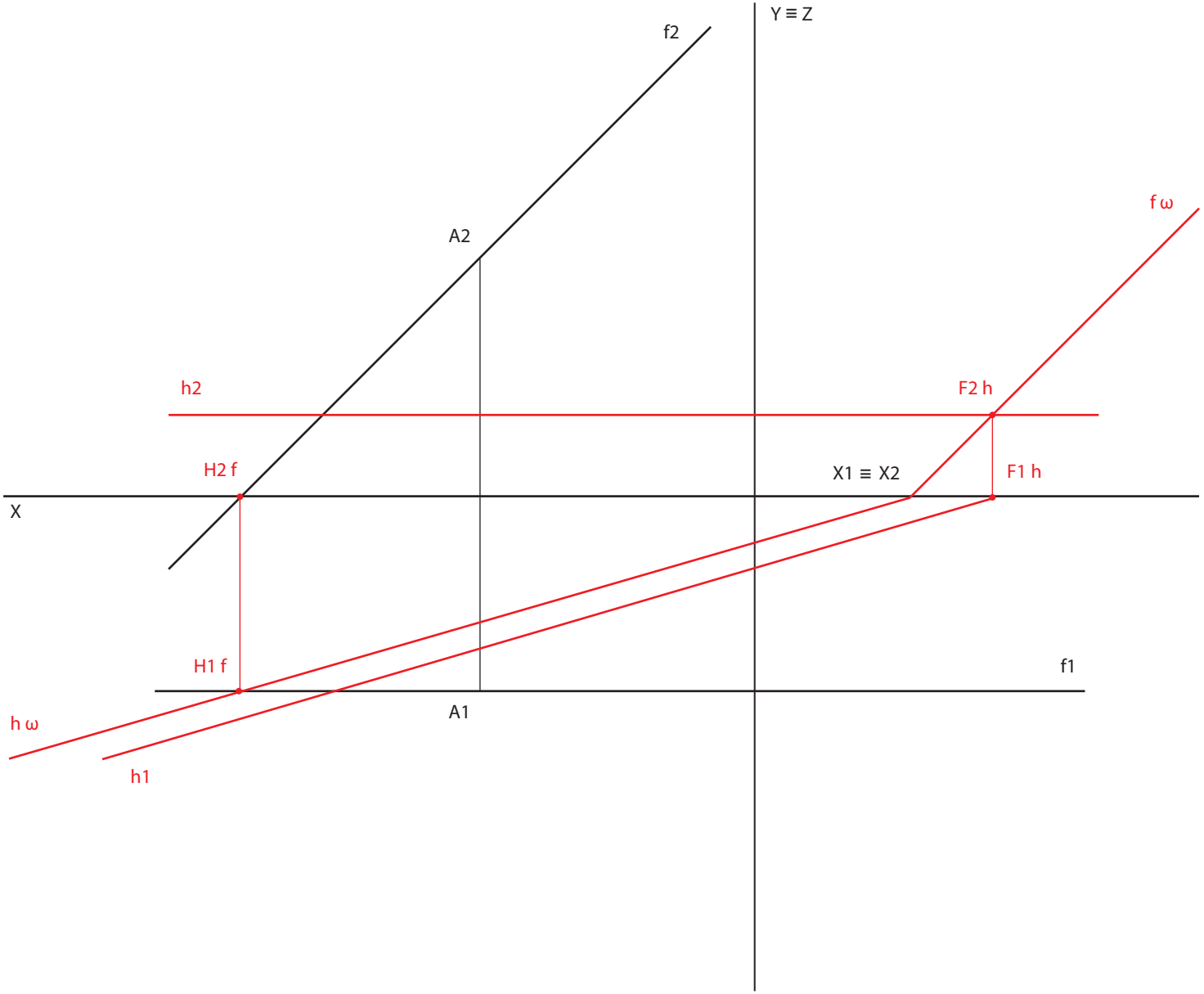

Y ≡ Z
a2 ≡ a1
f δ
b2
F2 b
P2
R2 ≡ R1
F1 b
X
H2 b
P1
H1 b
b1
h δ

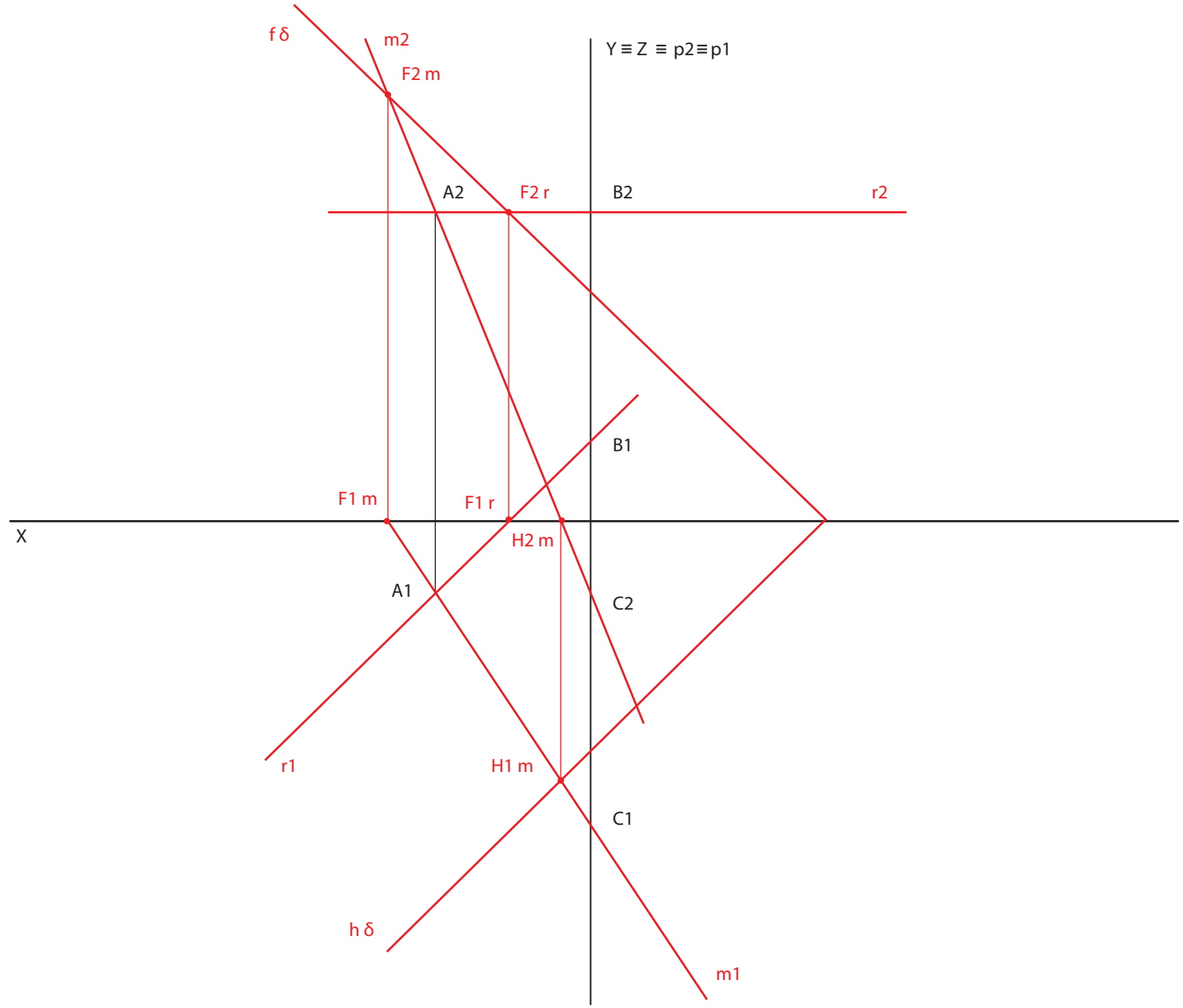

Y ≡ Z
m2
f2
f γ
L2
X ≡ s2
M2
A1 ≡ A2
f1
M1
L1
h γ ≡ s1
m1


d2
f ρ
F2 d
H2 d
X ≡ g2
F1 d
g1 ≡ h ρ
H1 d
d1


f2 ≡ f α
M2 ≡ M1
X ≡ h2 ≡ f1
h1 ≡ h α

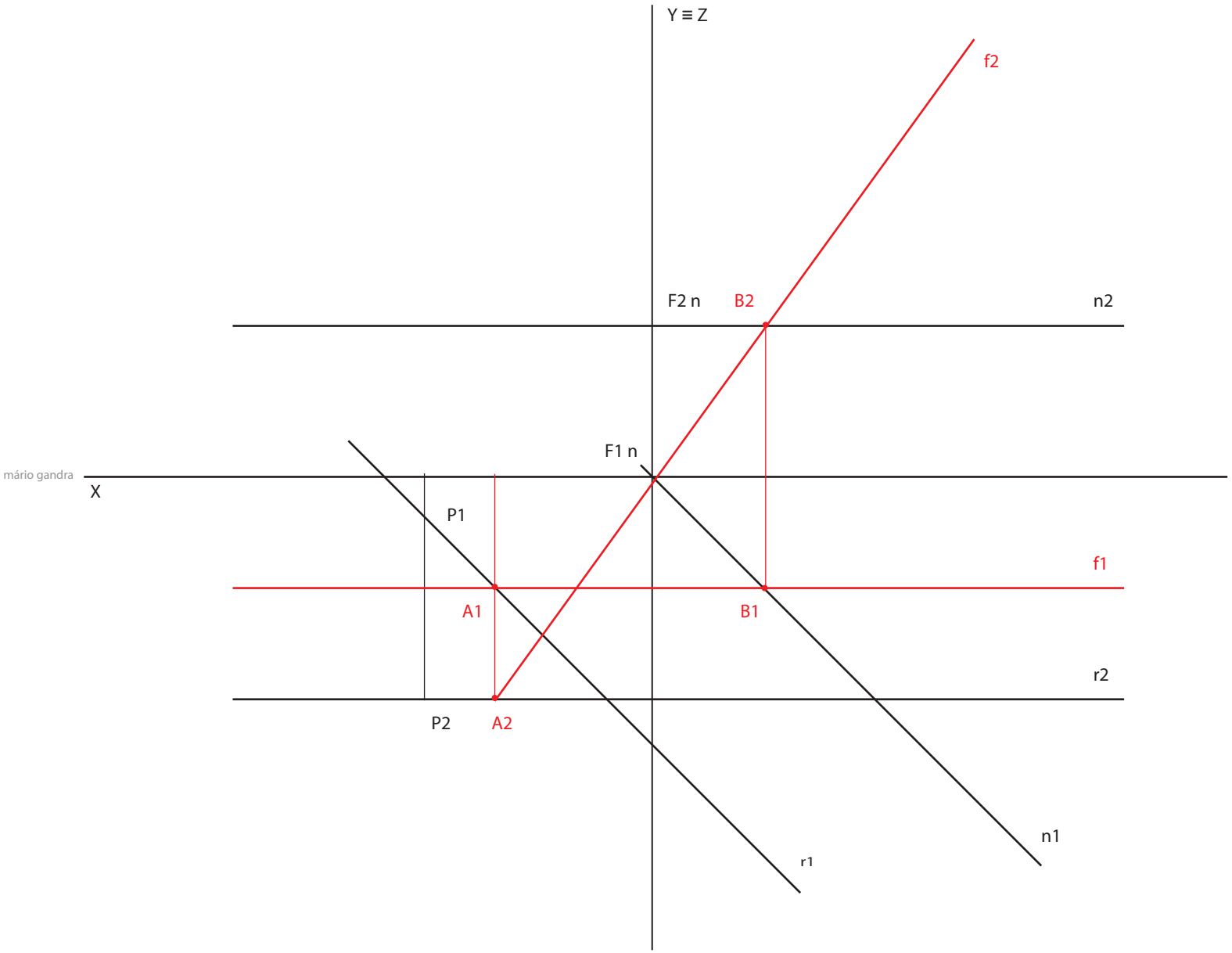

f α r ≡ f α ≡ h α ≡ p2 ≡ p1
Y ≡ Z
f w r ≡ f w ≡ h w ≡ t2 ≡ t1
f ω
p r
t r
l2 ≡ l1
l r
A r
F2 p ≡ F p r
A2
B2
B r
F2 t ≡ F t r
H p r
H t r
H2 t ≡ F1 t
F1 p ≡ H2 p
X ≡ h α r ≡ h w r
A1
H1 t
B1
H1 p
h ω


Y ≡ Z
f2
f ω
A2
h2
F2 h
H2 f
X1 ≡ X2
F1 h
X
H1 f
f1
A1
h ω
h1

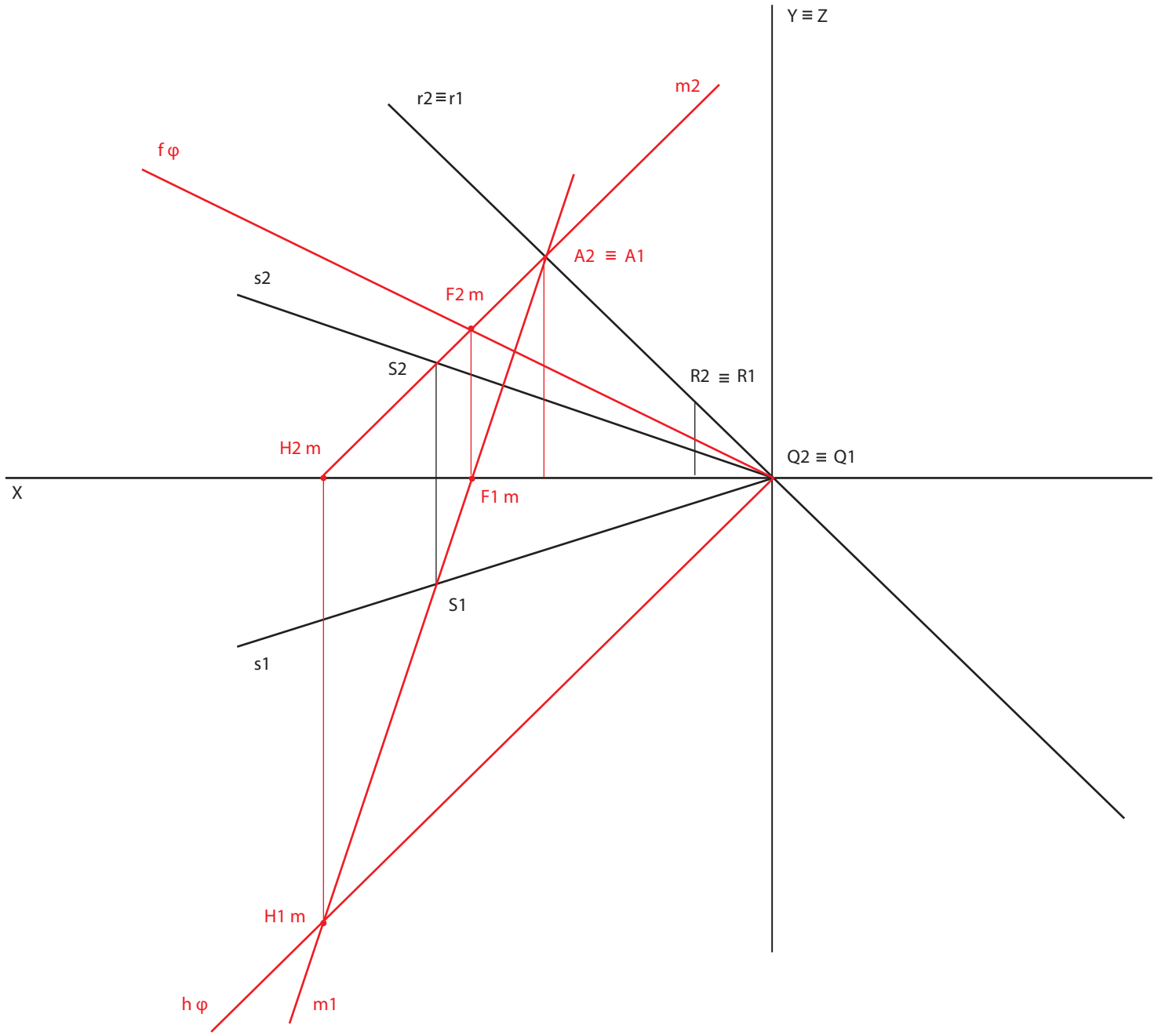

f δ
m2
F2 m
Y ≡ Z ≡ p2 ≡ p1
A2
F2 r
B2
r2
B1
F1 m
F1 r
X
H2 m
A1
C2
r1
H1 m
C1
h δ
m1

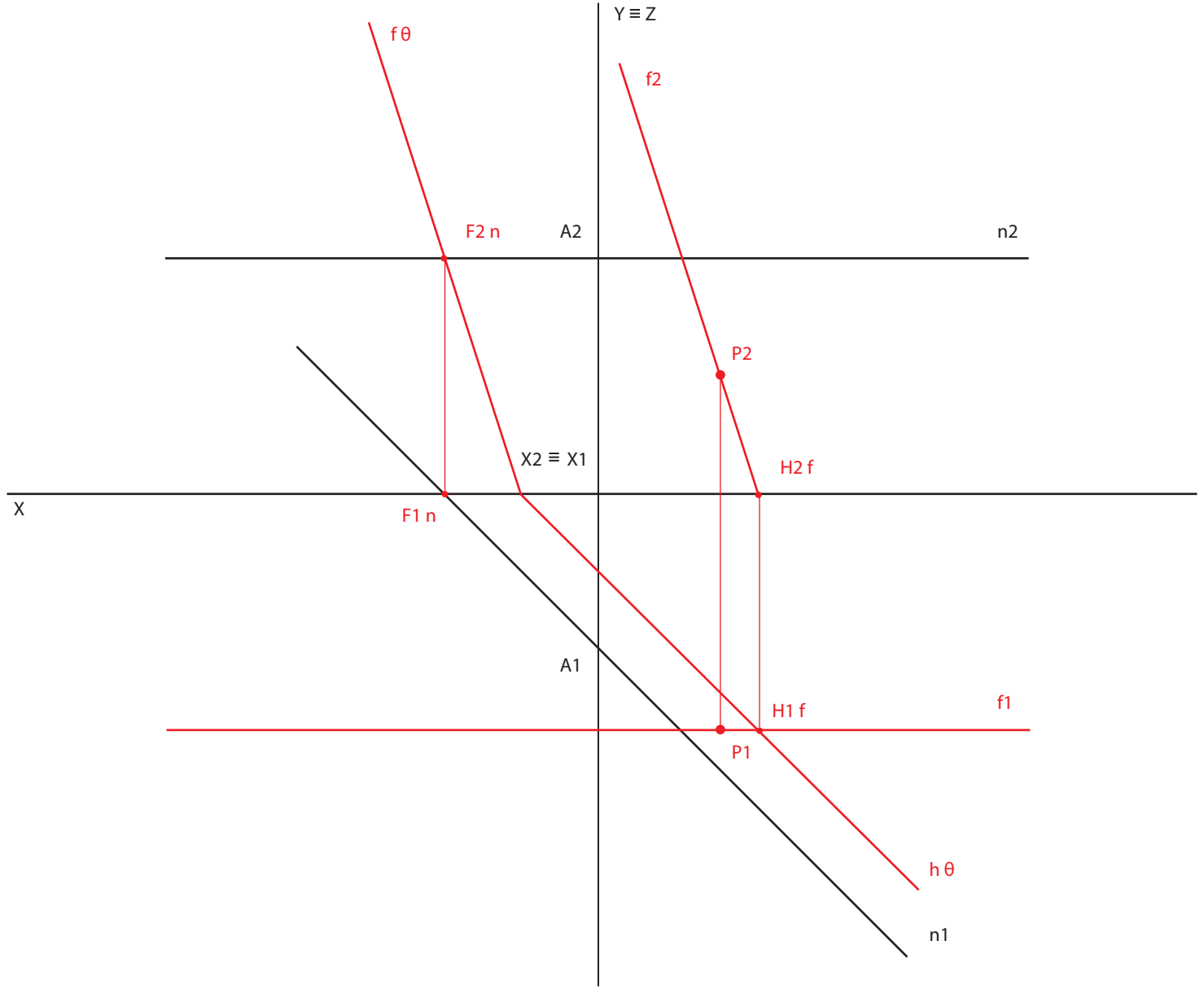
33

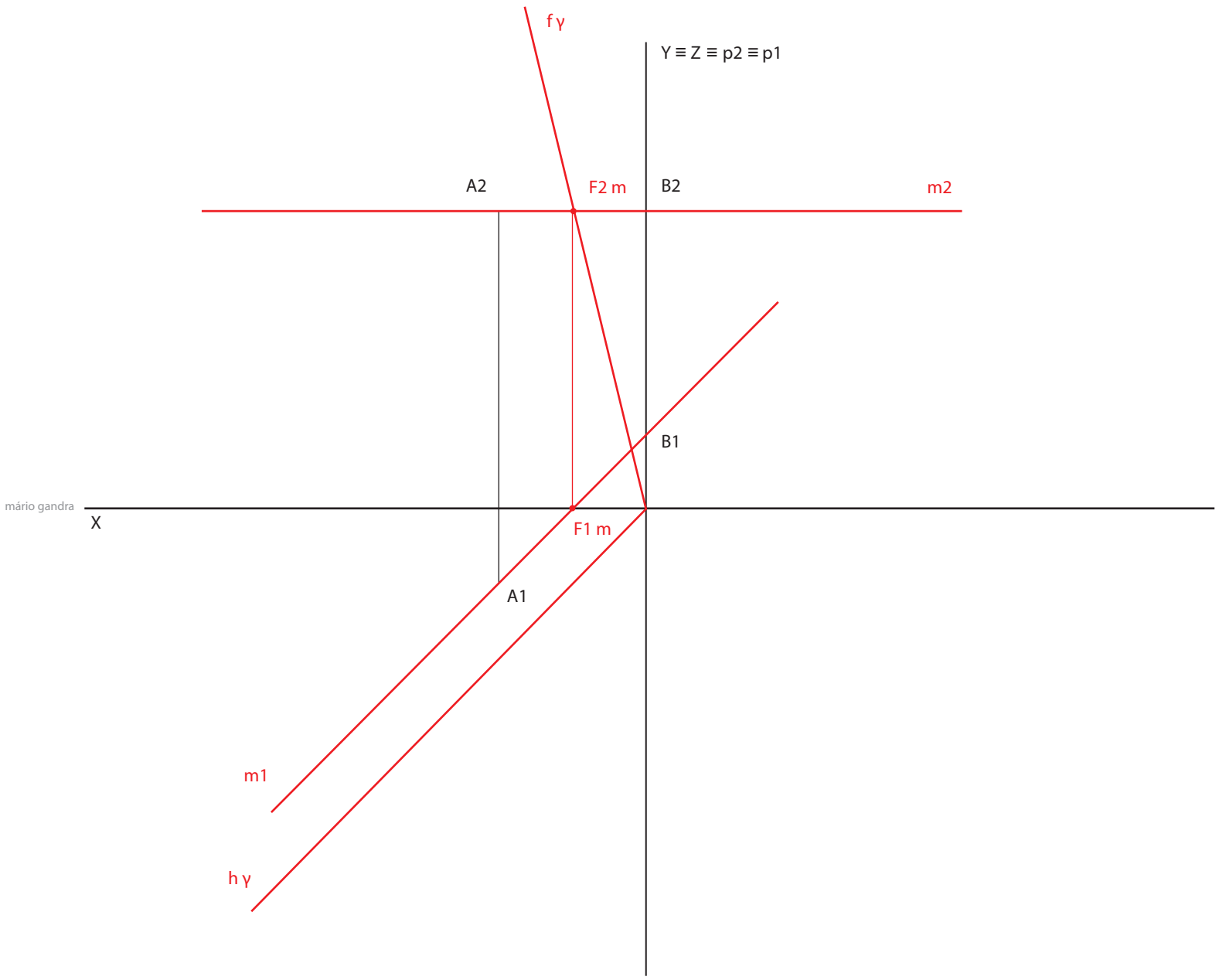
mário gandra

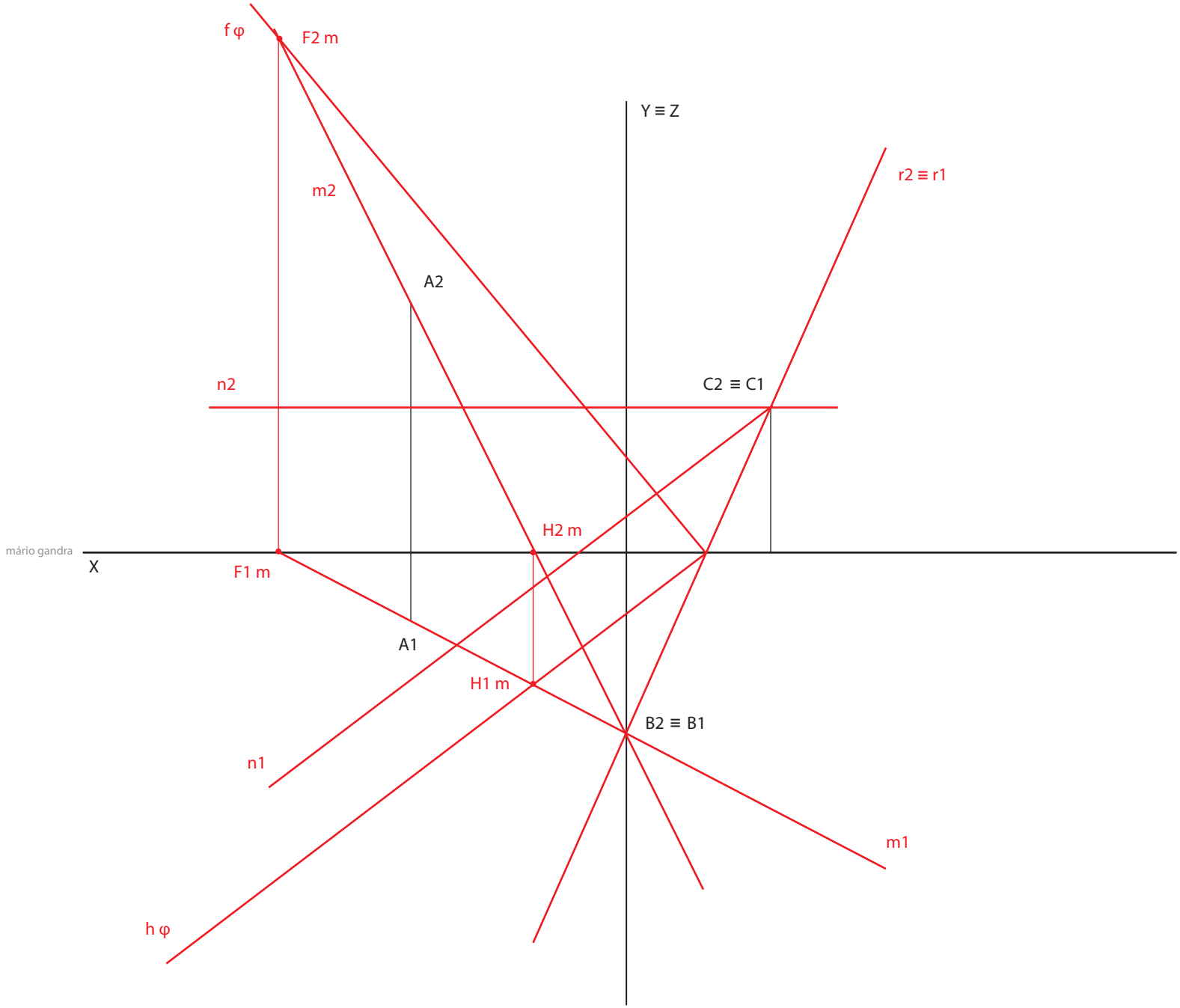


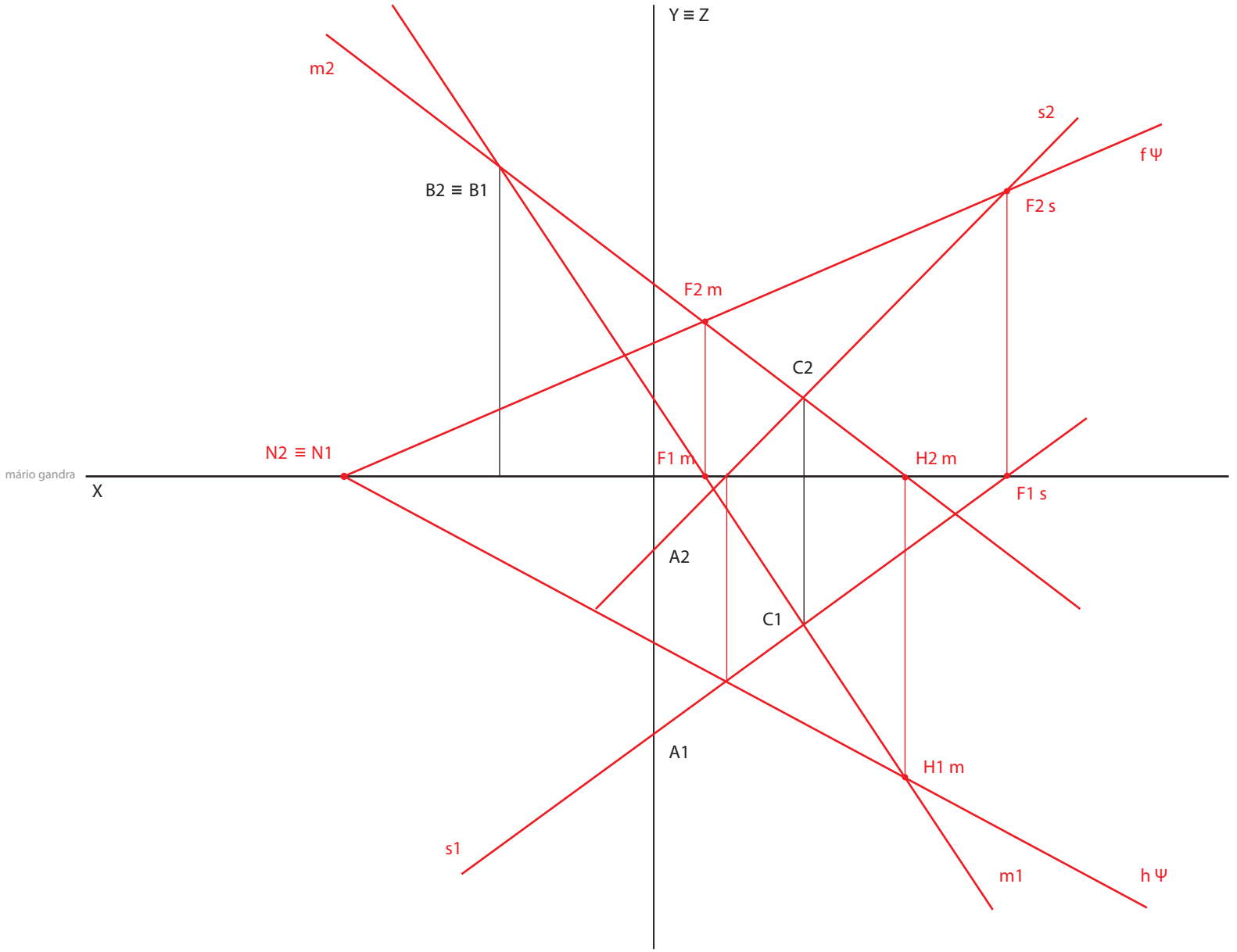
Resolvi o exercício recorrendo às retas do plano e não aos seus traços.

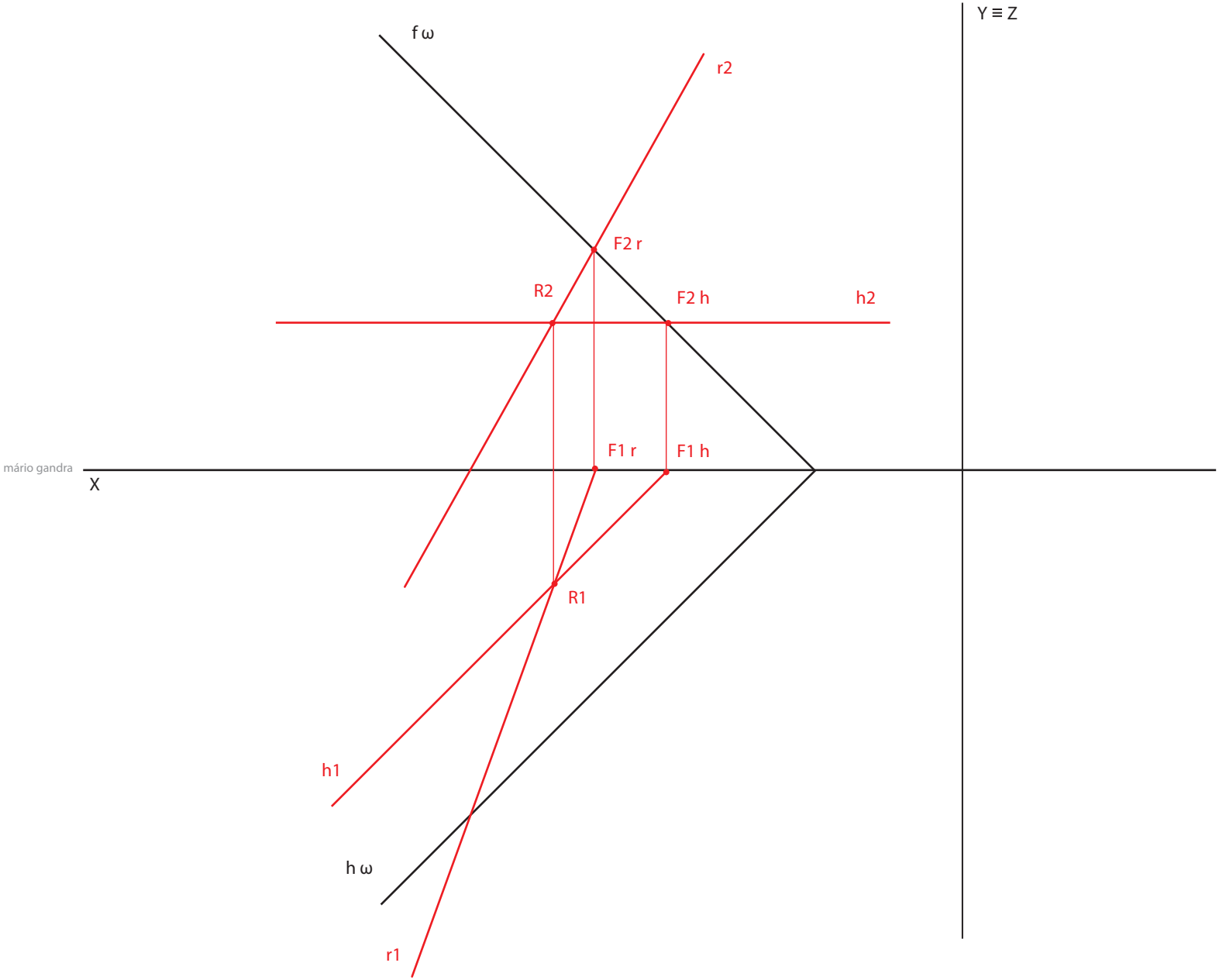

Y ≡ Z
r2 ≡ r1
m2
f φ
A2 ≡ A1
s2
F2 m
S2
R2 ≡ R1
H2 m
Q2 ≡ Q1
X
F1 m
S1
s1
H1 m
h φ
m1

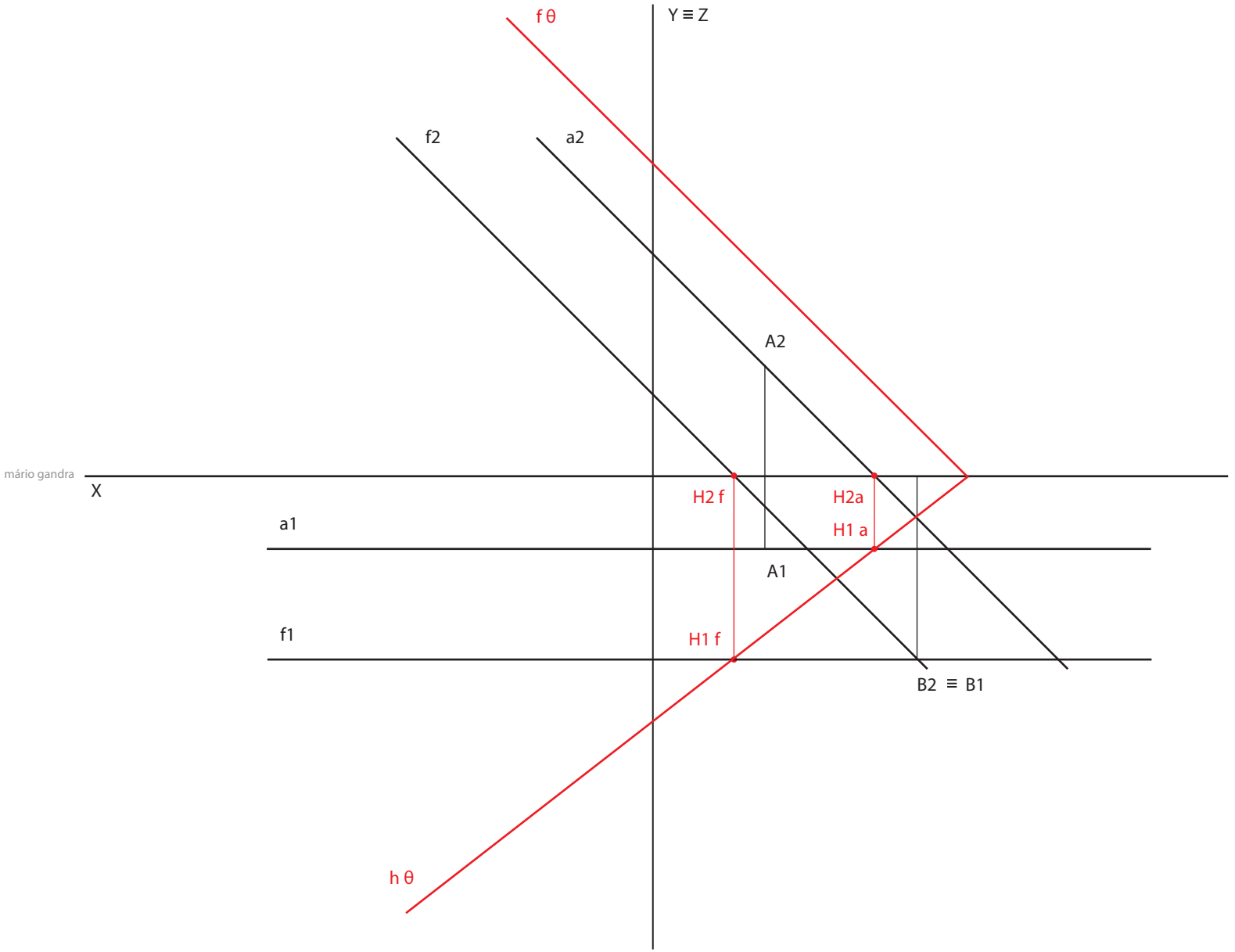


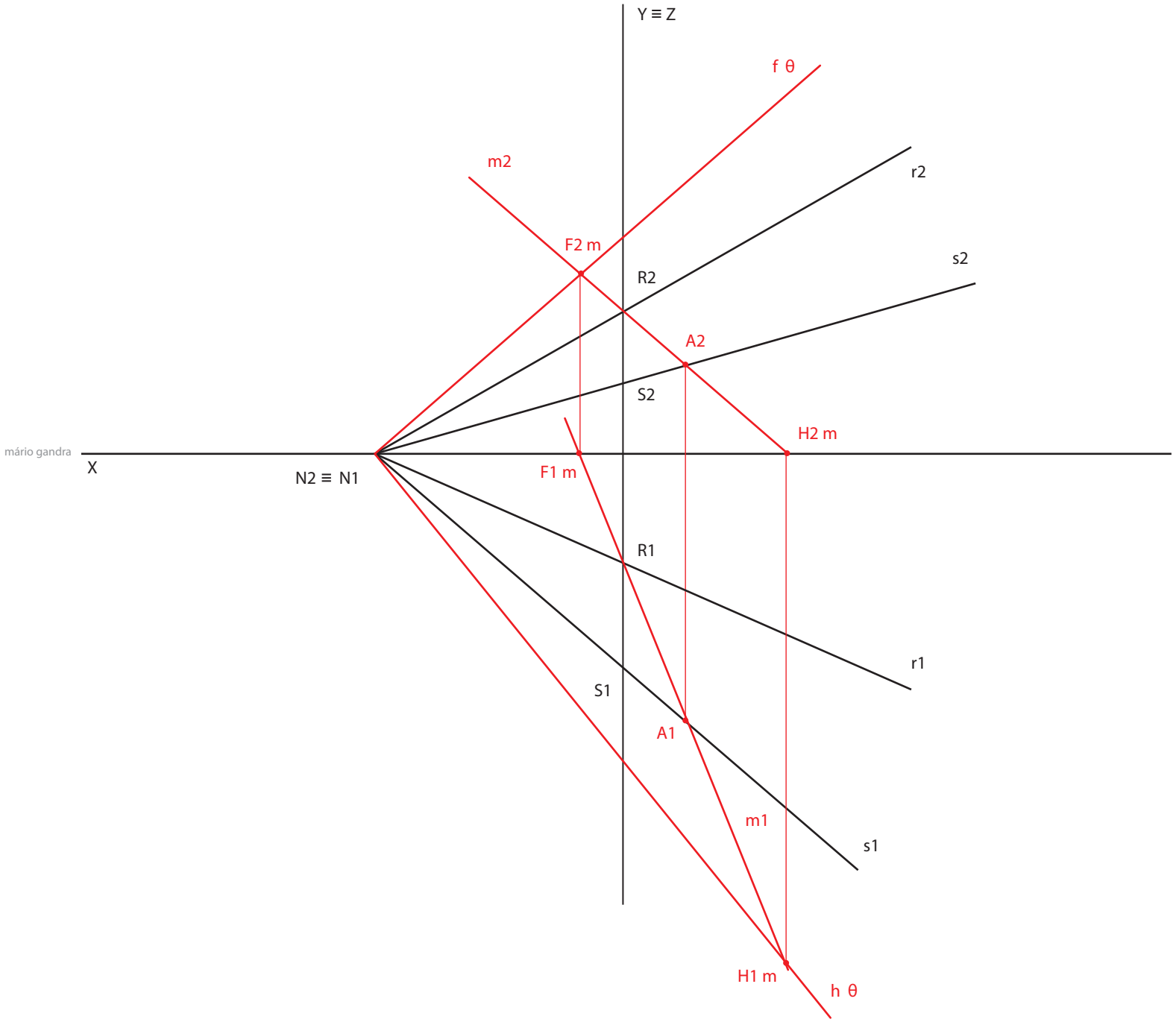

f γ
Y ≡ Z ≡ p2 ≡ p1
A2
F2 m
B2
m2
B1
X
F1 m
A1
m1
h γ

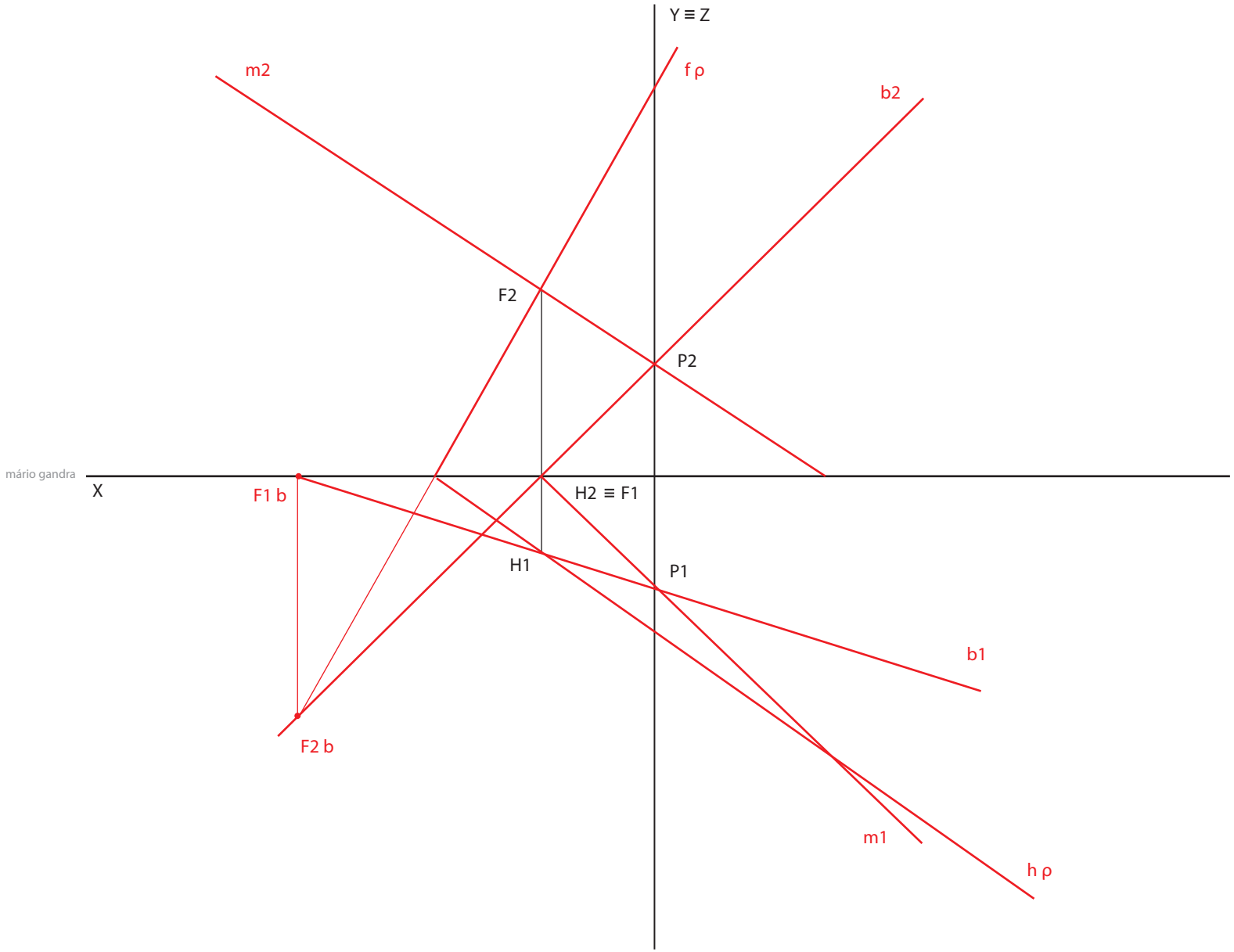

f φ
F2 m
Y ≡ Z
r2 ≡ r1
m2
A2
n2
C2 ≡ C1
H2 m
X
F1 m
A1
H1 m
B2 ≡ B1
n1
m1
h φ

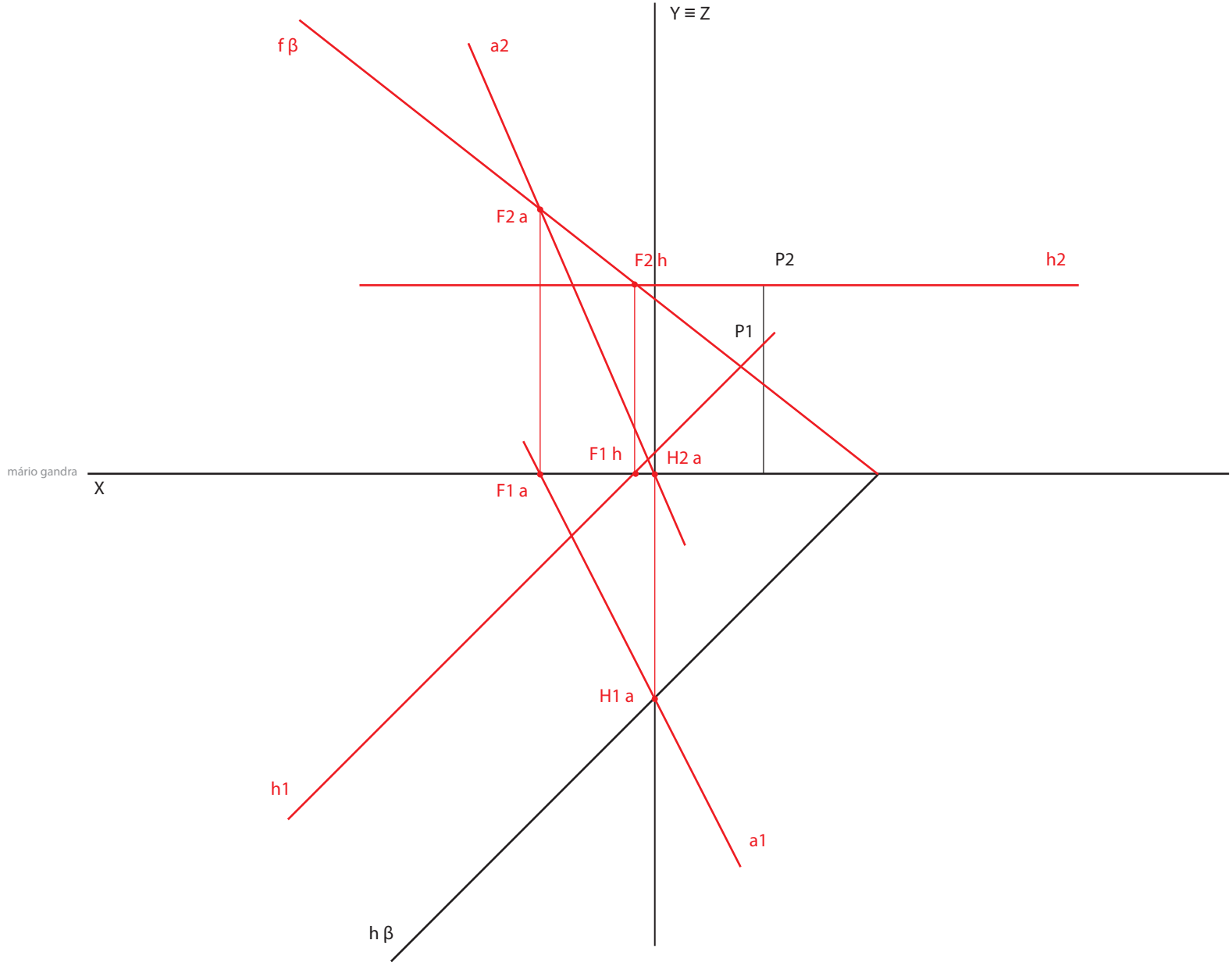

Y ≡ Z
m2
s2
f Ψ
B2 ≡ B1
F2 s
F2 m
C2
N2 ≡ N1
F1 m
H2 m
X
F1 s
A2
C1
A1
H1 m
s1
m1
h Ψ

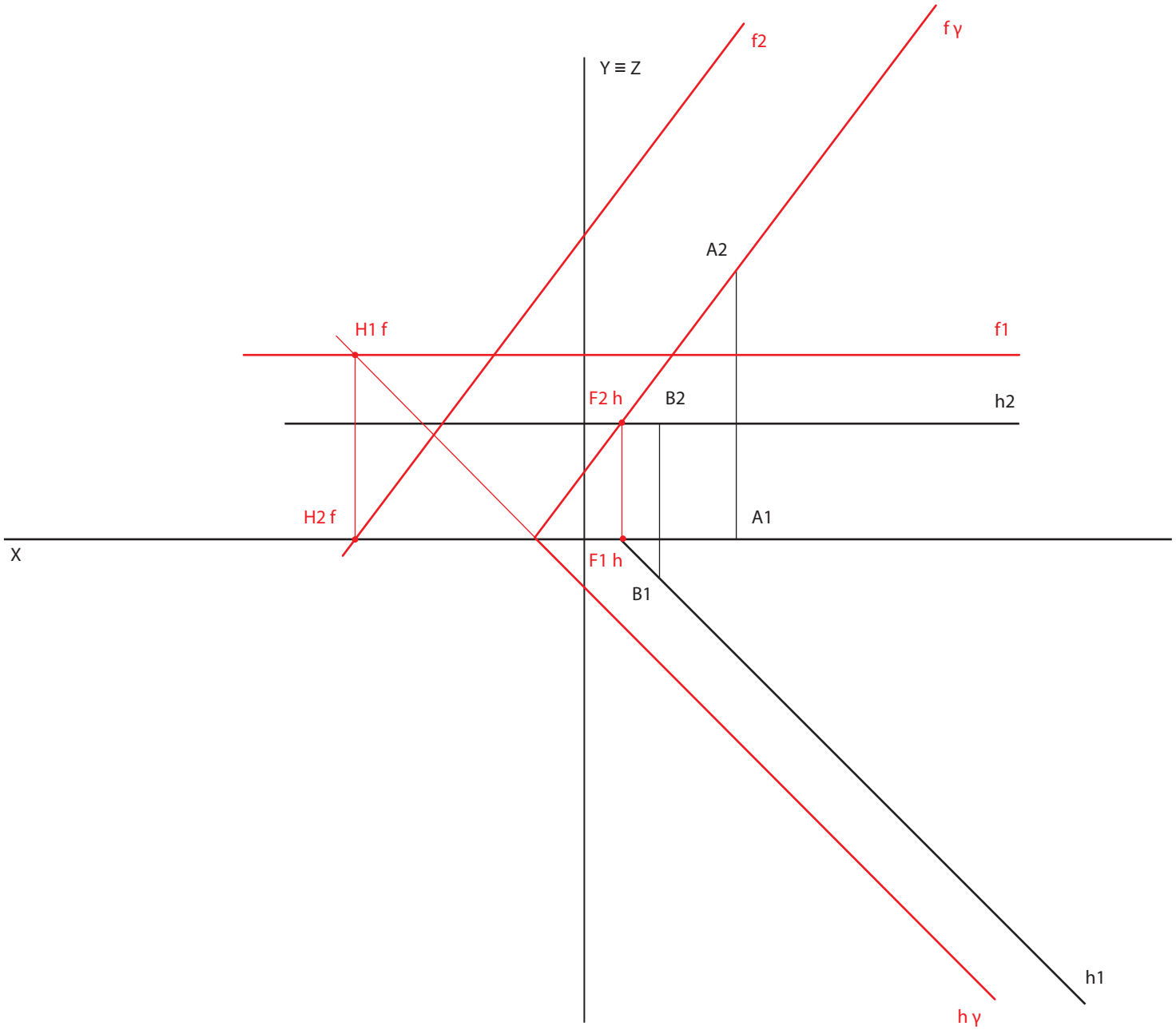

f ω
r2
Y ≡ Z
F2 r
R2
F2 h
h2
F1 r
F1 h
X
R1
h1
h ω
r1

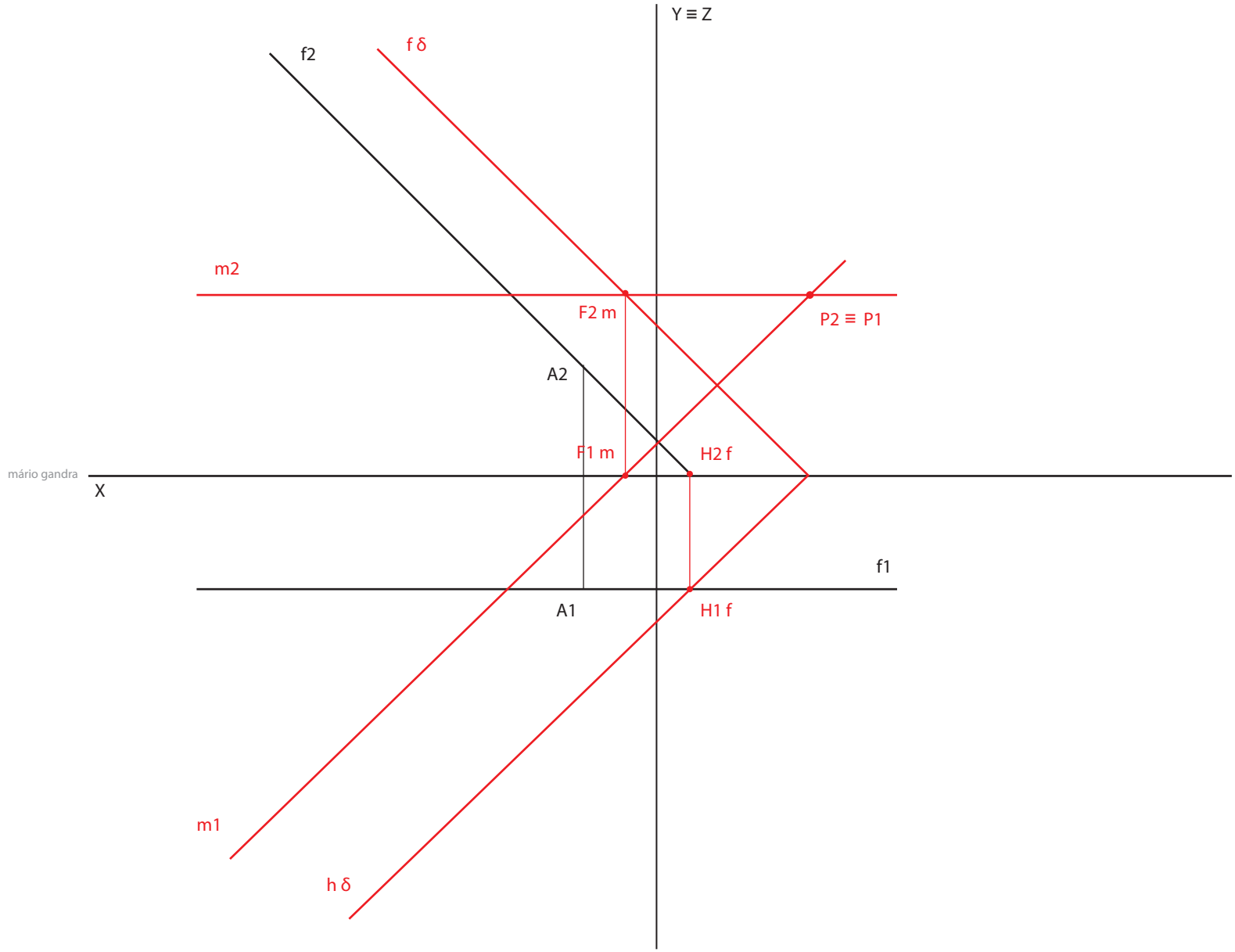

f θ
Y ≡ Z
f2
a2
A2
X
H2 f
H2a
H1 a
a1
A1
f1
H1 f
B2 ≡ B1
h θ

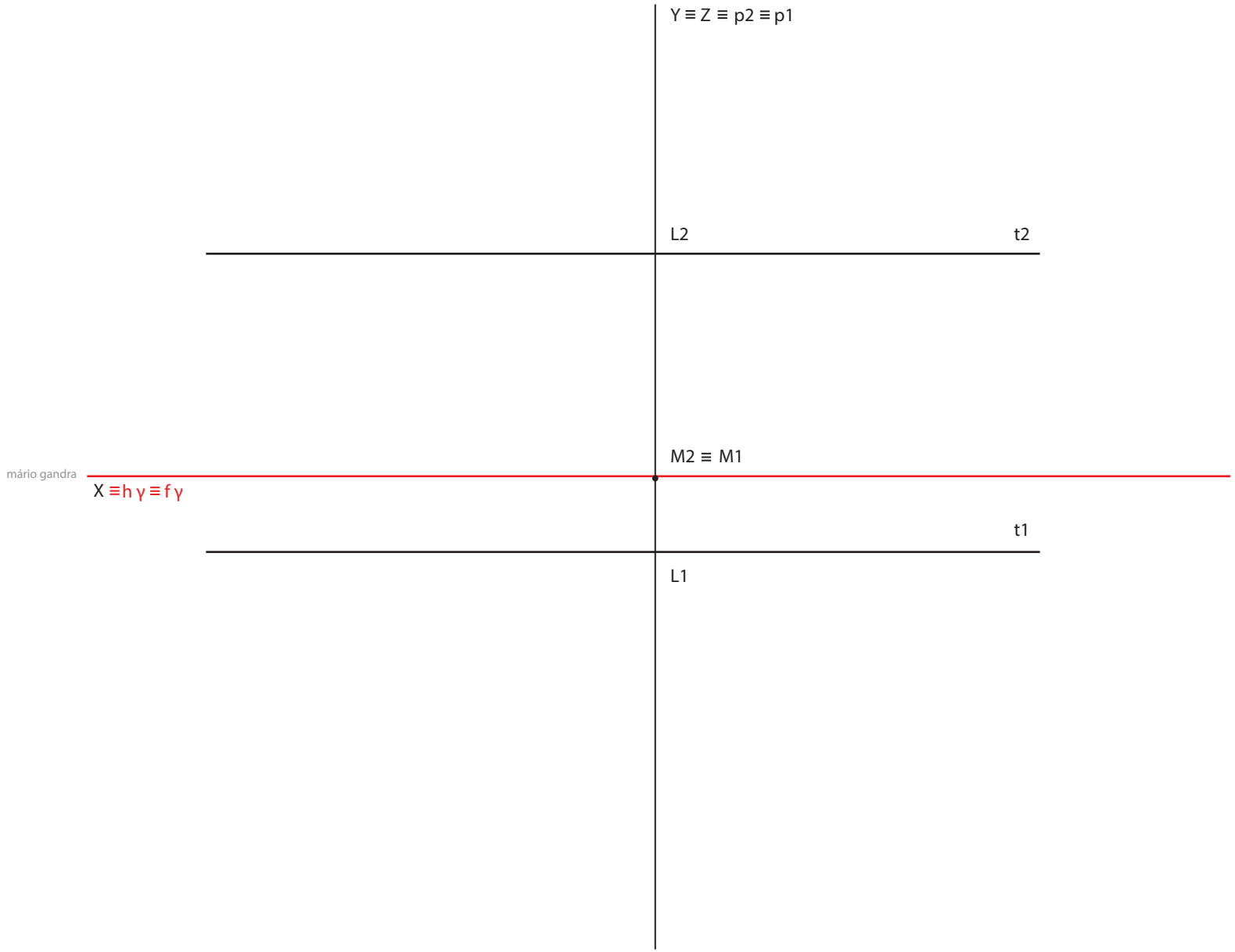

Y ≡ Z
f θ
m2
r2
F2 m
s2
R2
A2
S2
H2 m
X
N2 ≡ N1
F1 m
R1
r1
S1
A1
m1
s1
H1 m
h θ

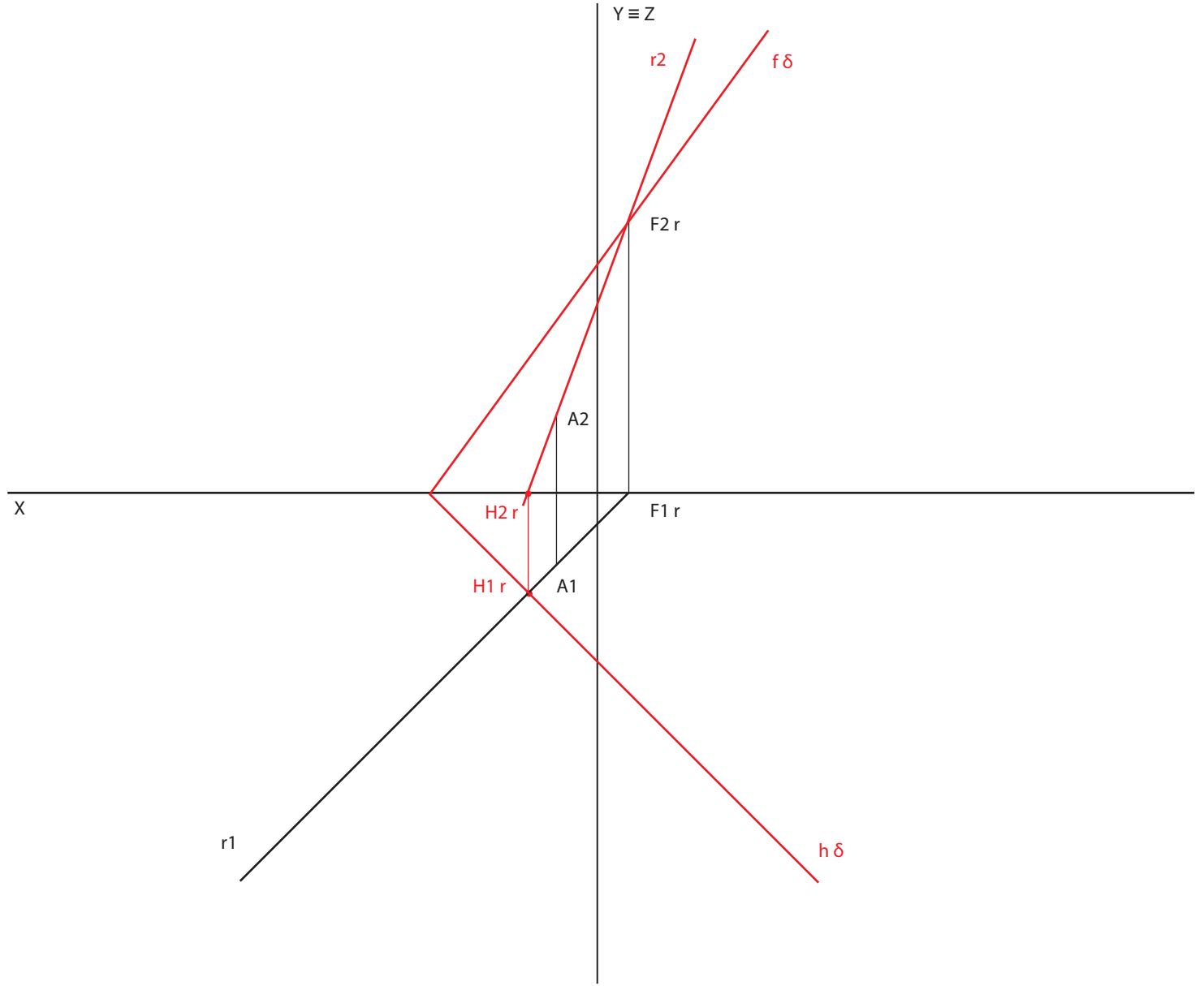

Y ≡ Z
m2
f ρ
b2
F2
P2
X
F1 b
H2 ≡ F1
H1
P1
b1
F2 b
m1
h ρ

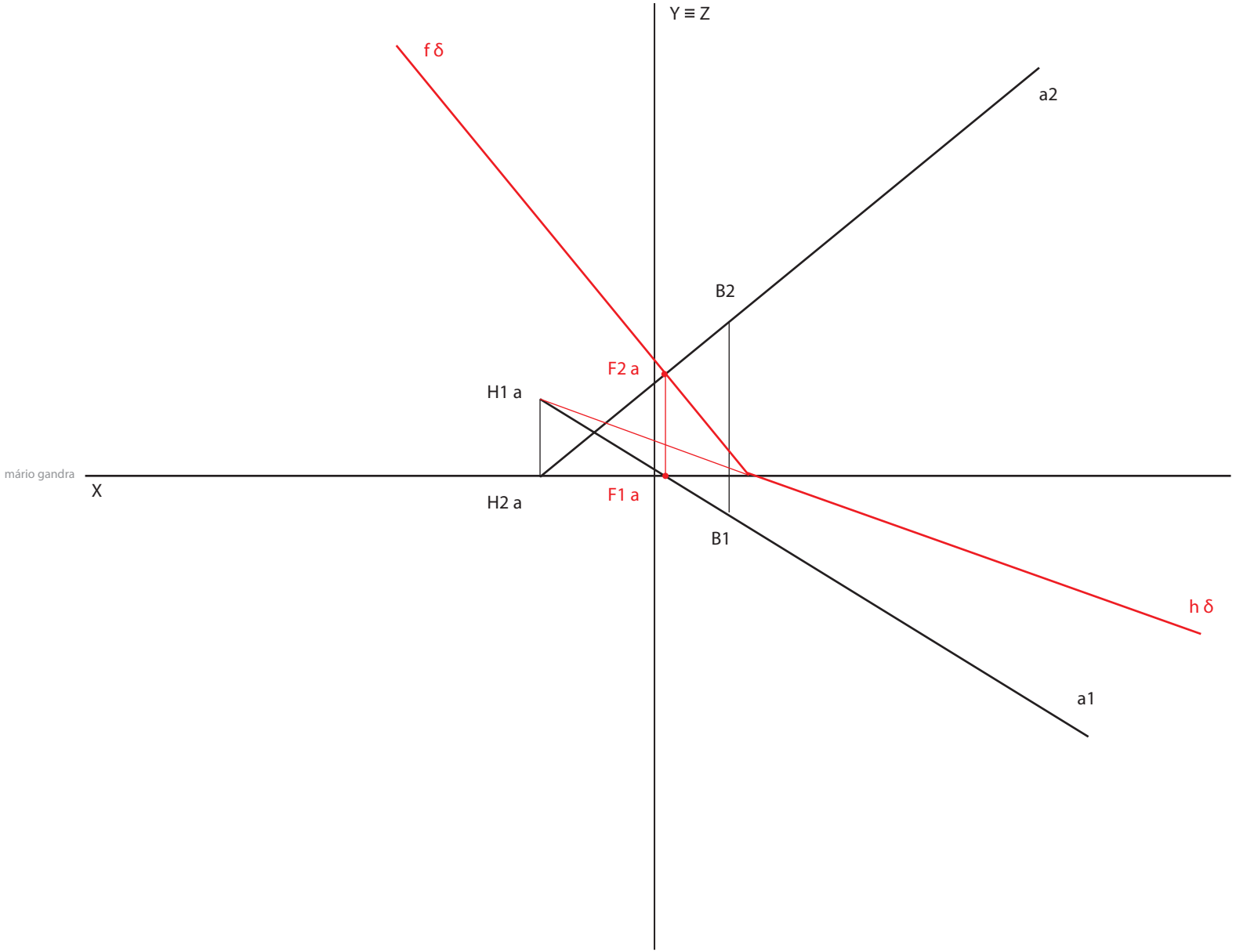


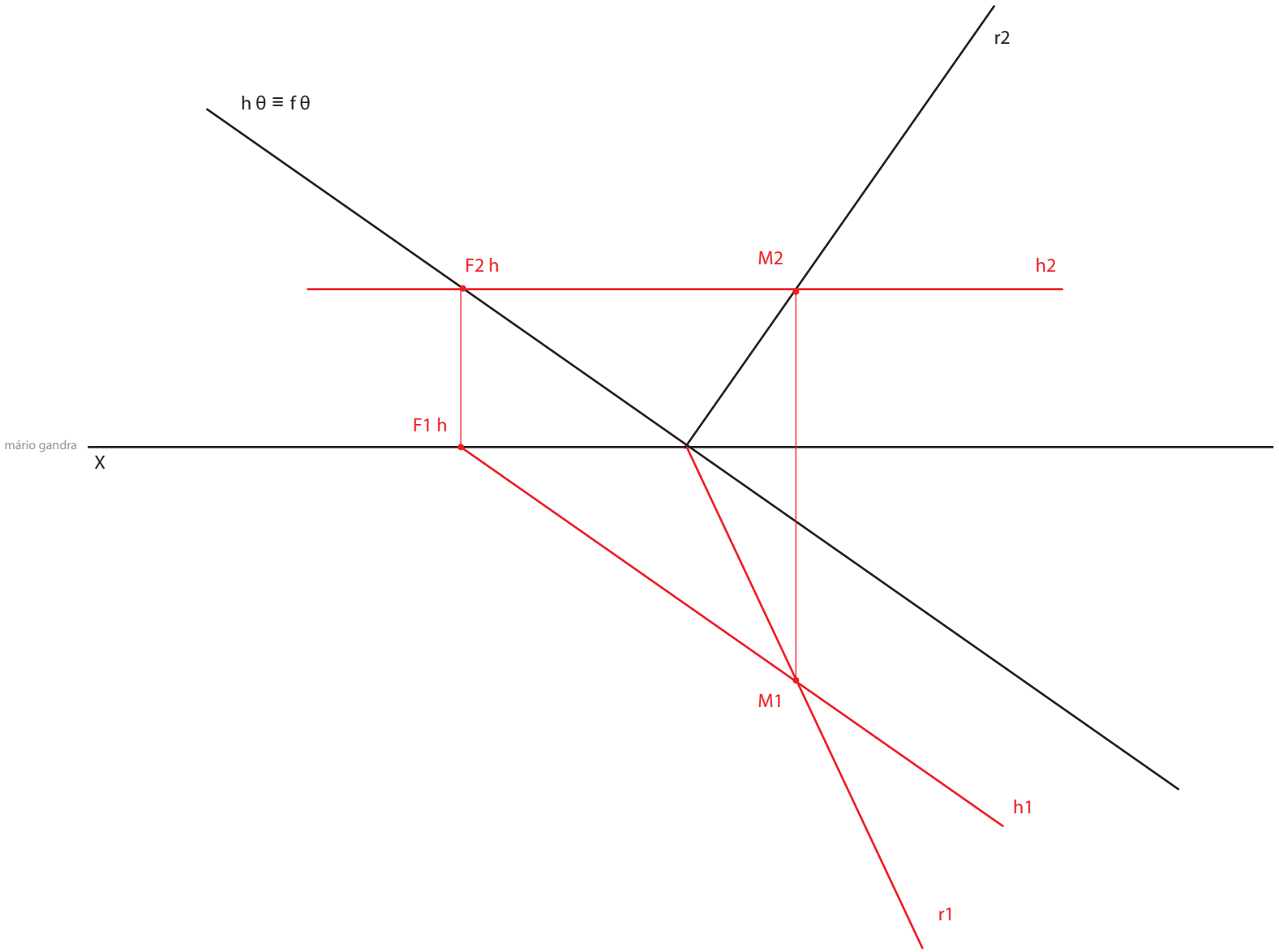

f2
f γ
Y ≡ Z
A2
H1 f
f1
F2 h
B2
h2
H2 f
A1
X
F1 h
B1
h1
h γ

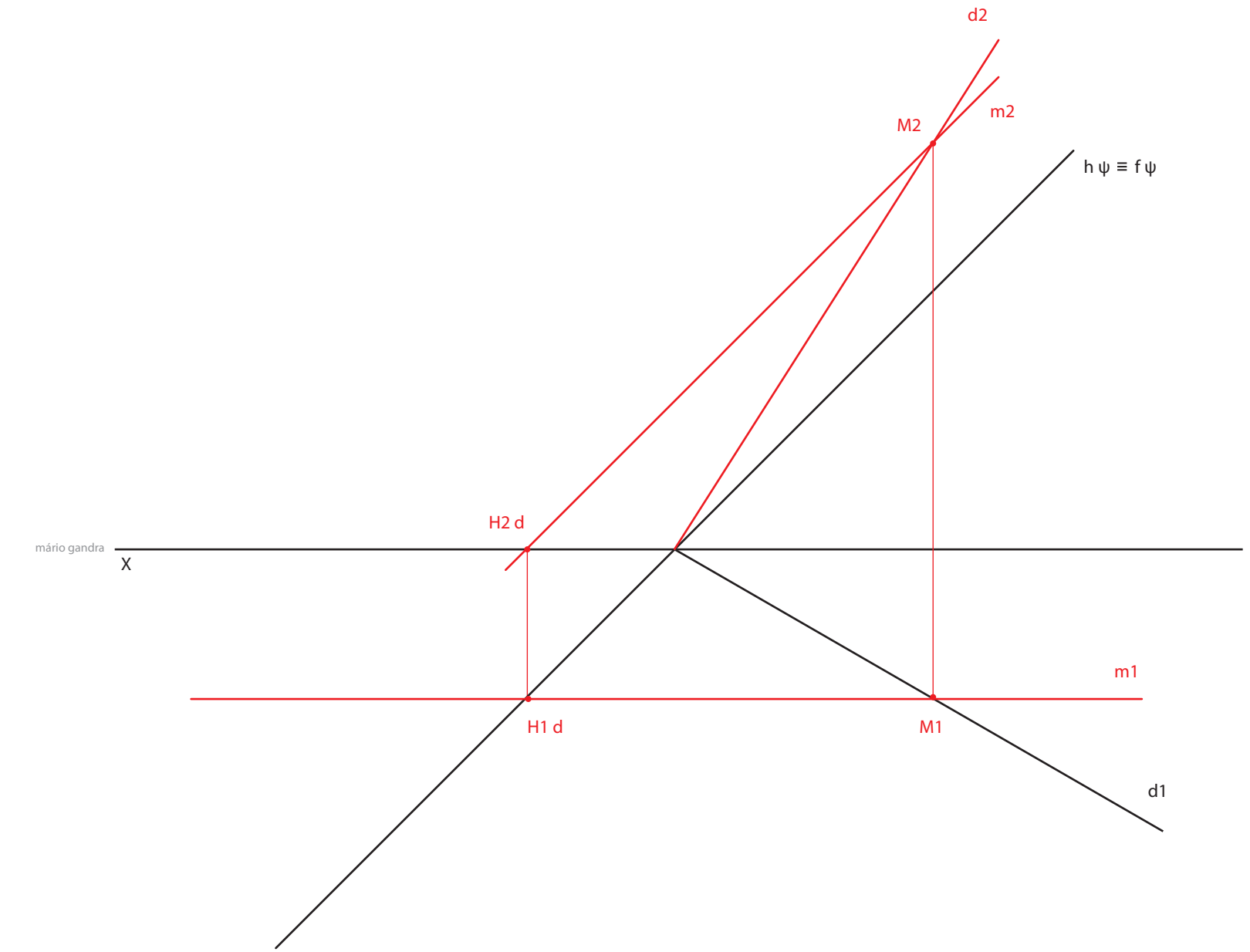


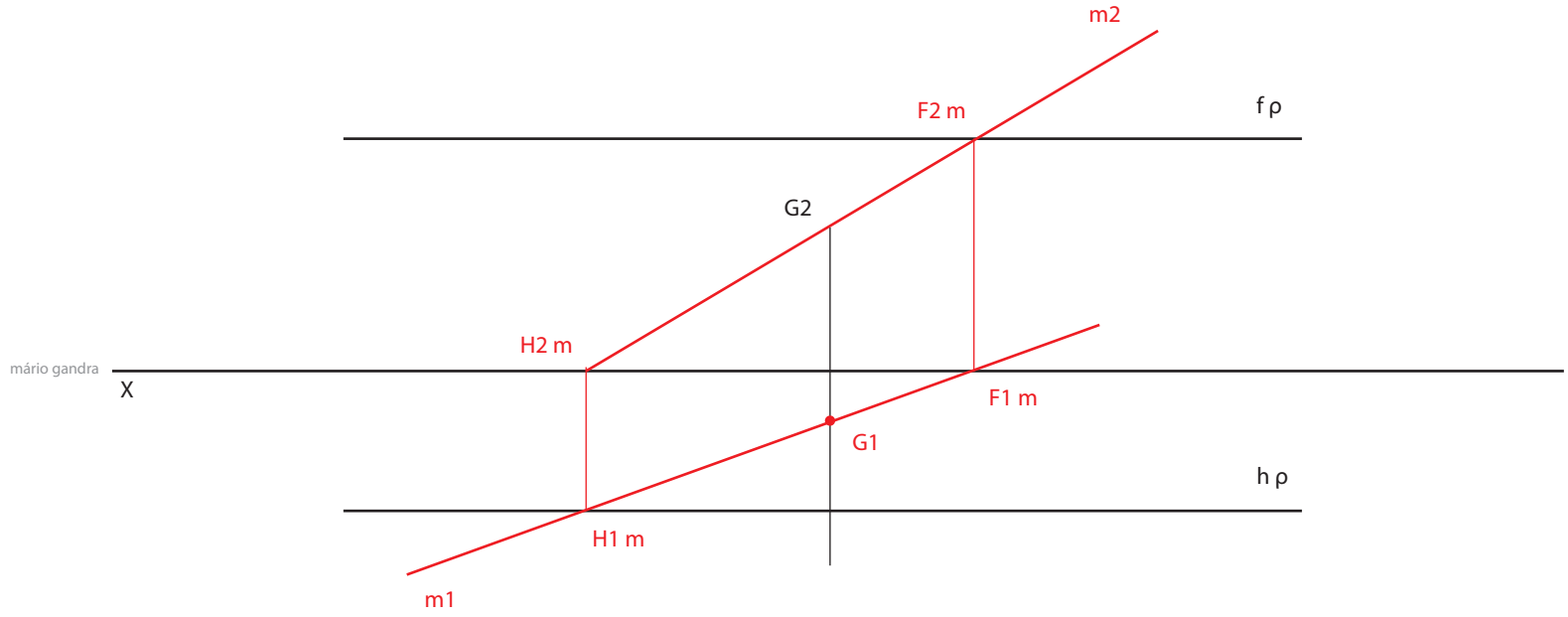

Y ≡ Z ≡ p2 ≡ p1
L2
t2
M2 ≡ M1
X ≡ h γ ≡ f γ
t1
L1

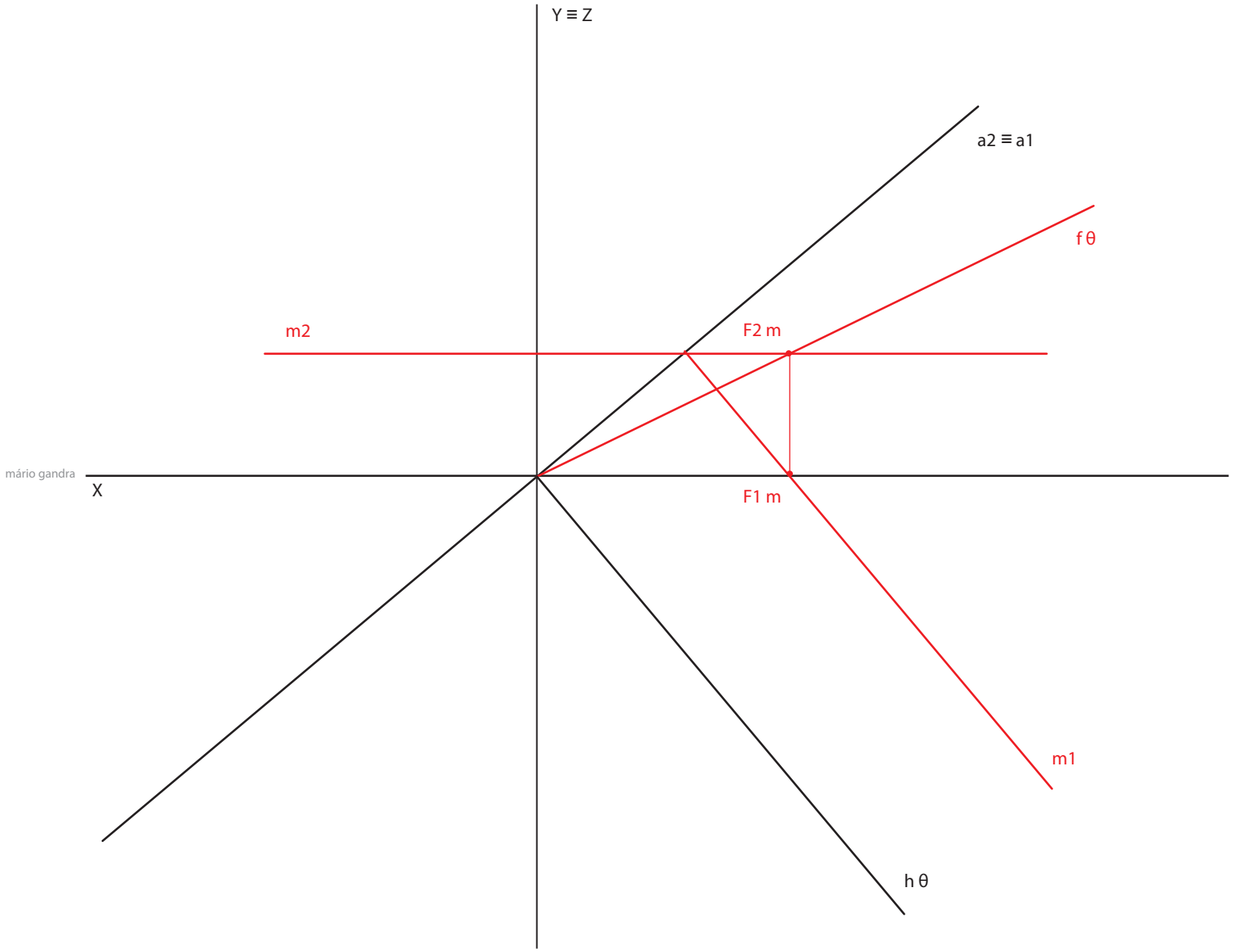

Y ≡ Z
r2
f δ
F2 r
A2
X
H2 r
F1 r
H1 r
A1
r1
h δ

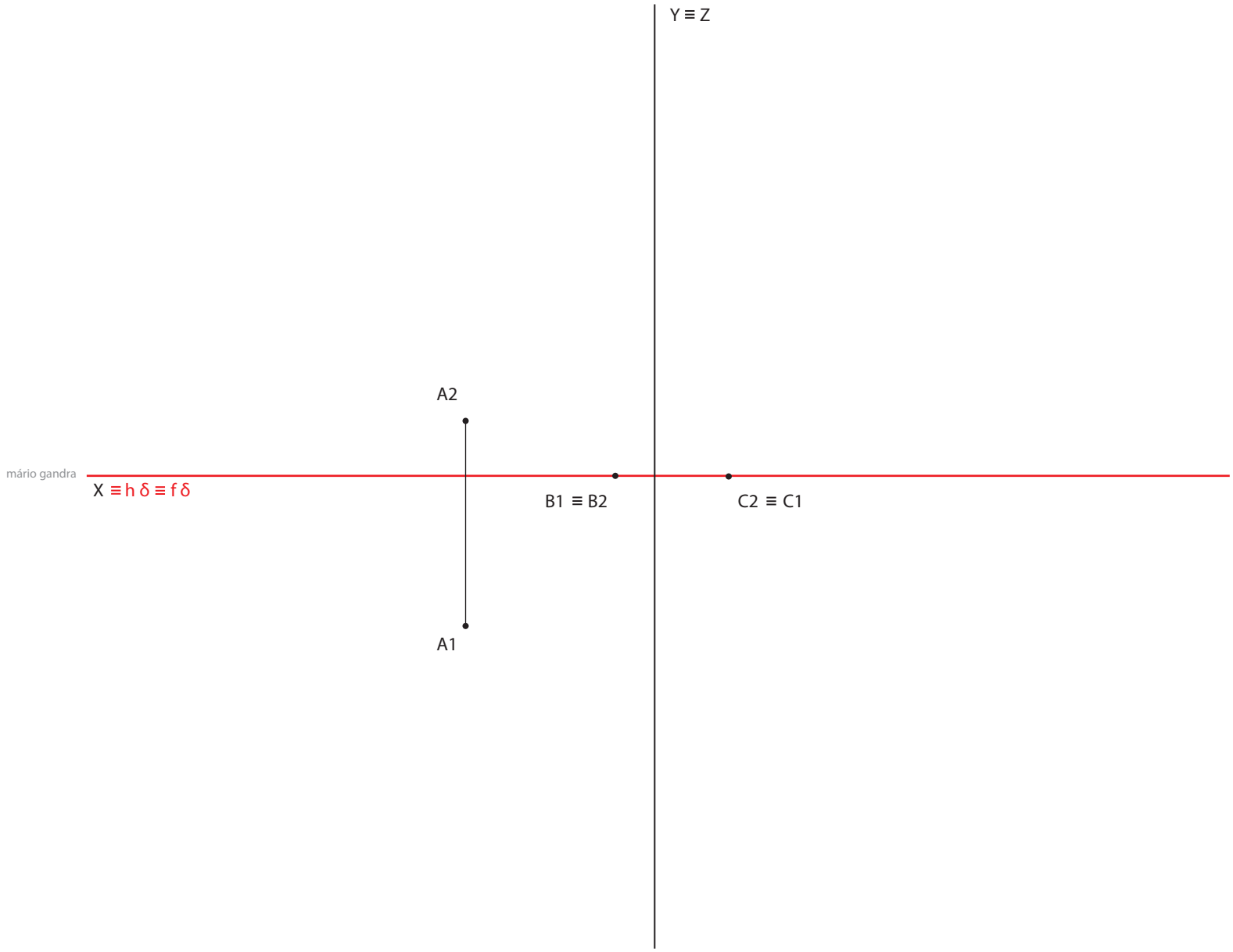

Y ≡ Z
f δ
a2
B2
F2 a
H1 a
X
H2 a
F1 a
B1
h δ
a1


h θ ≡ f θ
r2
F2 h
M2
h2
F1 h
X
M1
h1
r1

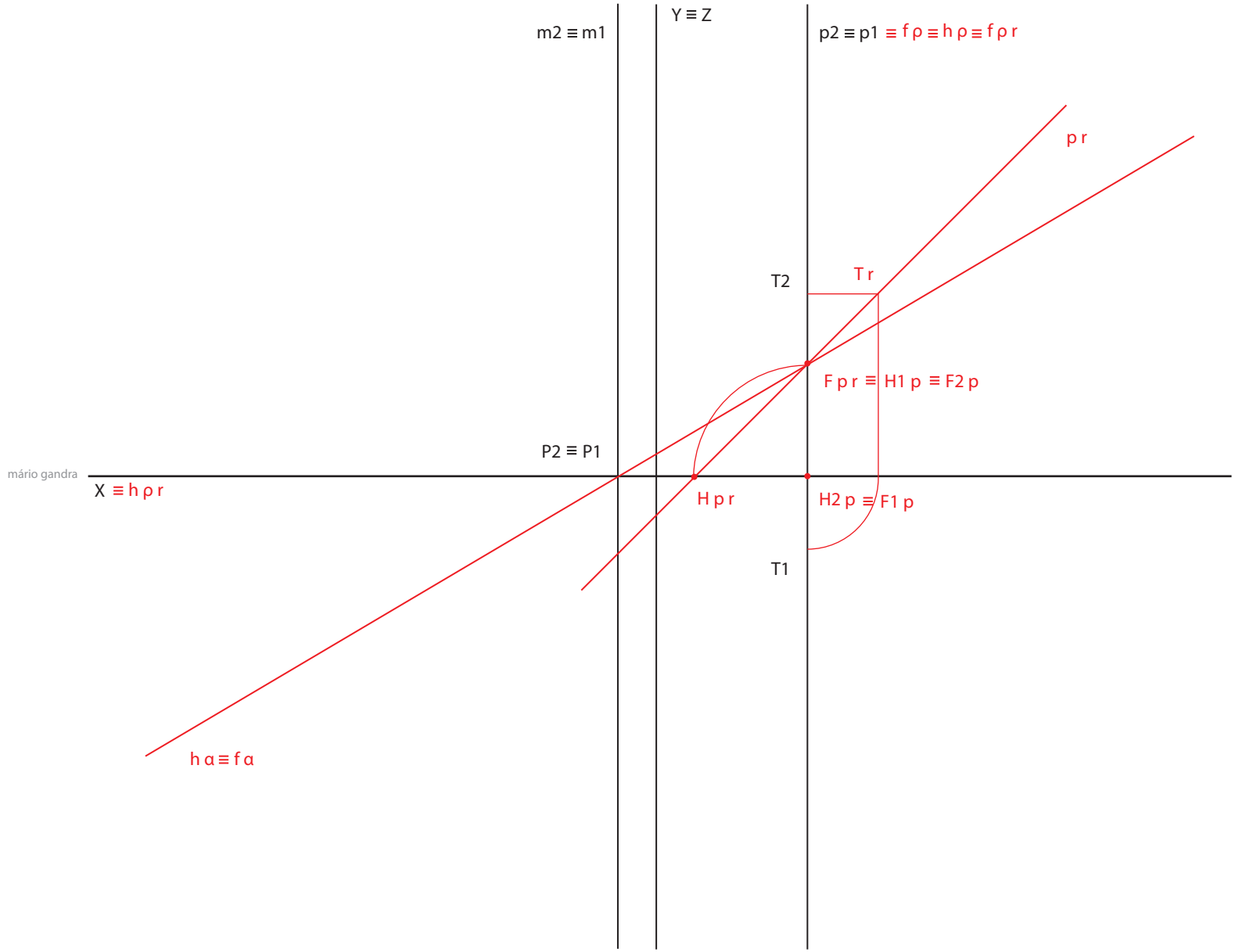

d2
m2
M2
h ψ ≡ f ψ
H2 d
X
m1
H1 d
M1
d1

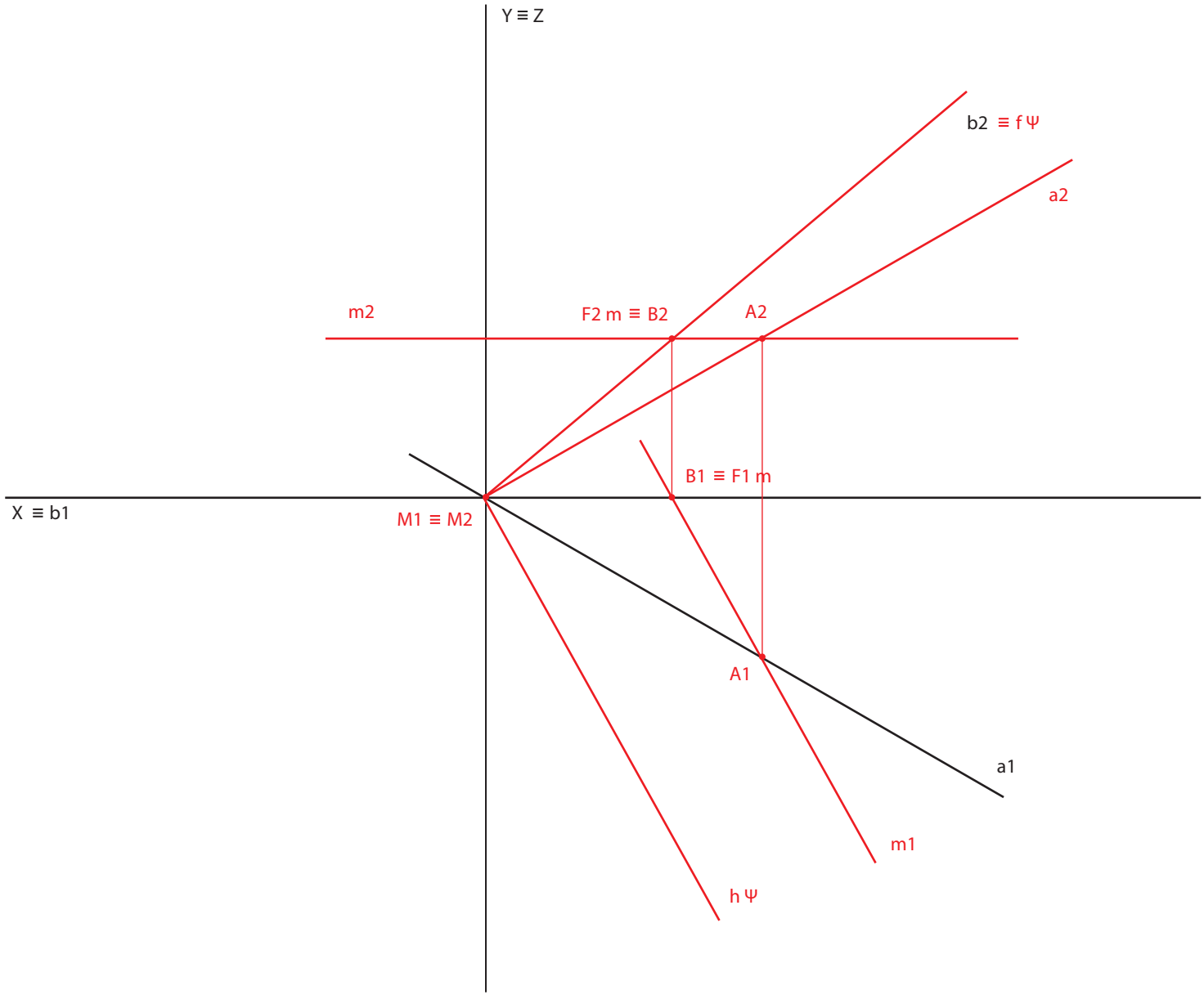

m2
F2 m
f ρ
G2
H2 m
X
F1 m
G1
h ρ
H1 m
m1

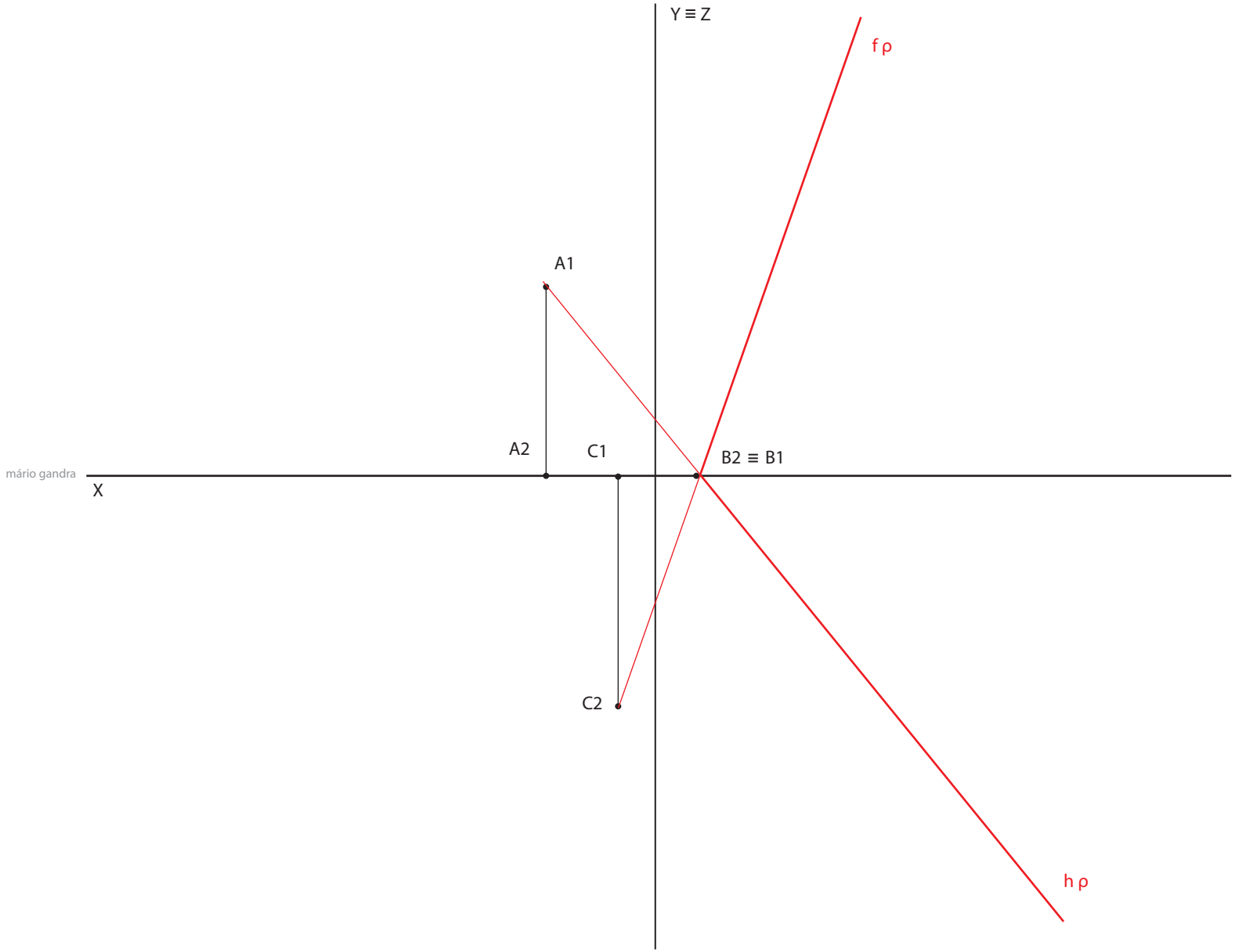

Y ≡ Z
a2 ≡ a1
f θ
m2
F2 m
X
F1 m
m1
h θ



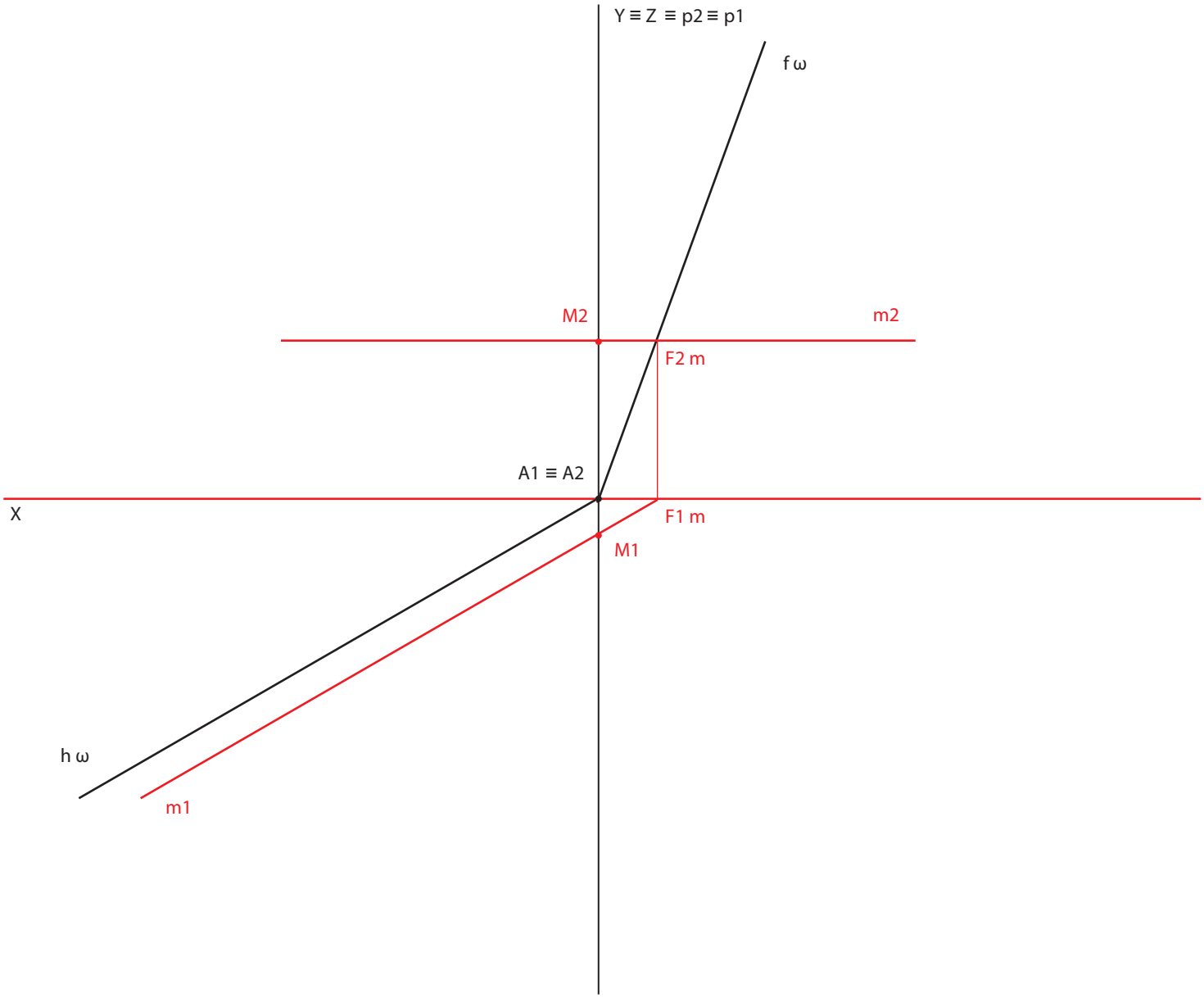
Como dois dos seus pontos pertencem ao eixo x, só pode ser um plano passante.

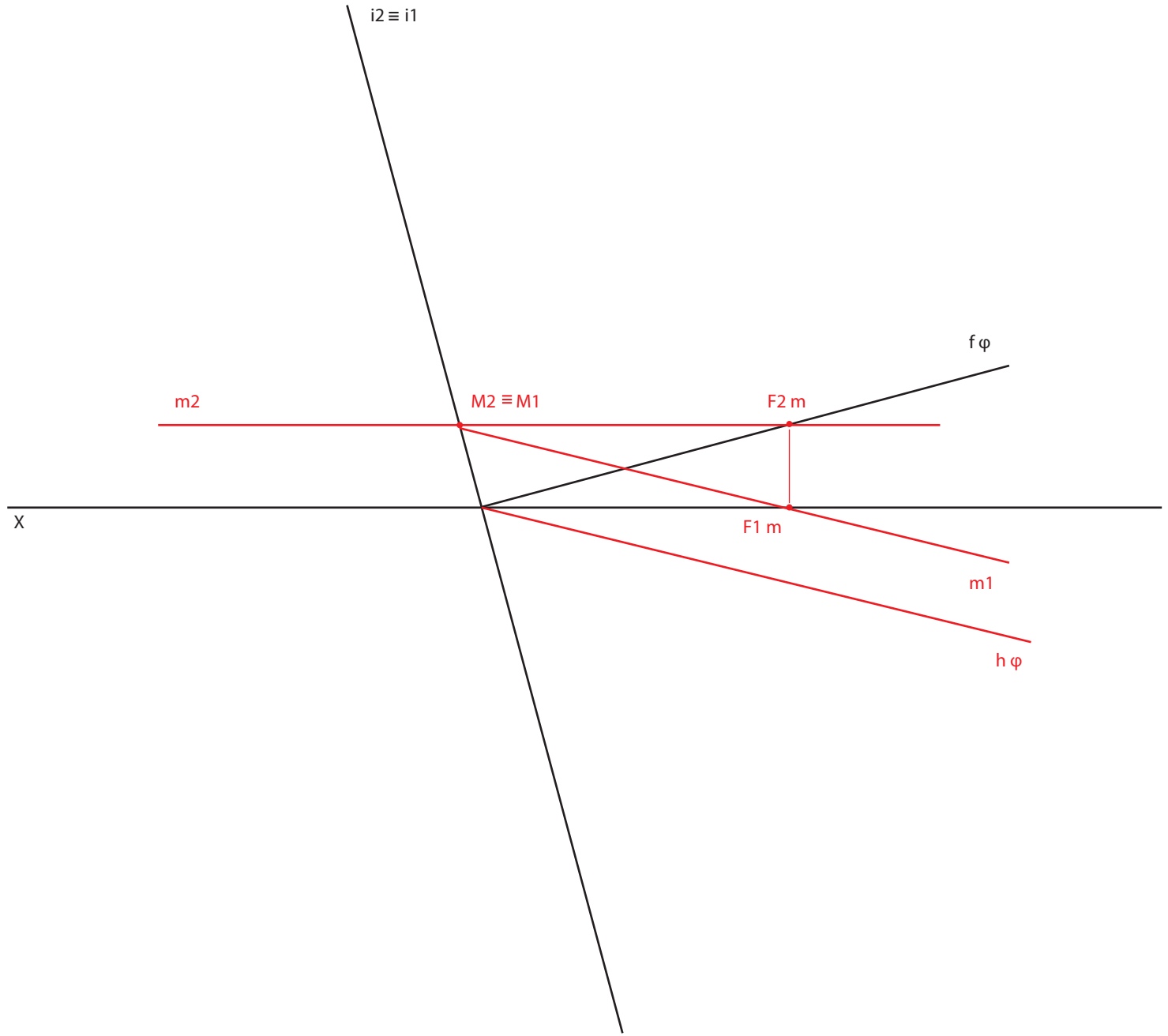

m2 ≡ m1
Y ≡ Z
p2 ≡ p1 ≡ f ρ ≡ h ρ ≡ f ρ r
p r
T2
T r
F p r ≡ H1 p ≡ F2 p
P2 ≡ P1
X ≡ h ρ r
H p r
H2 p ≡ F1 p
T1
h α ≡ f α

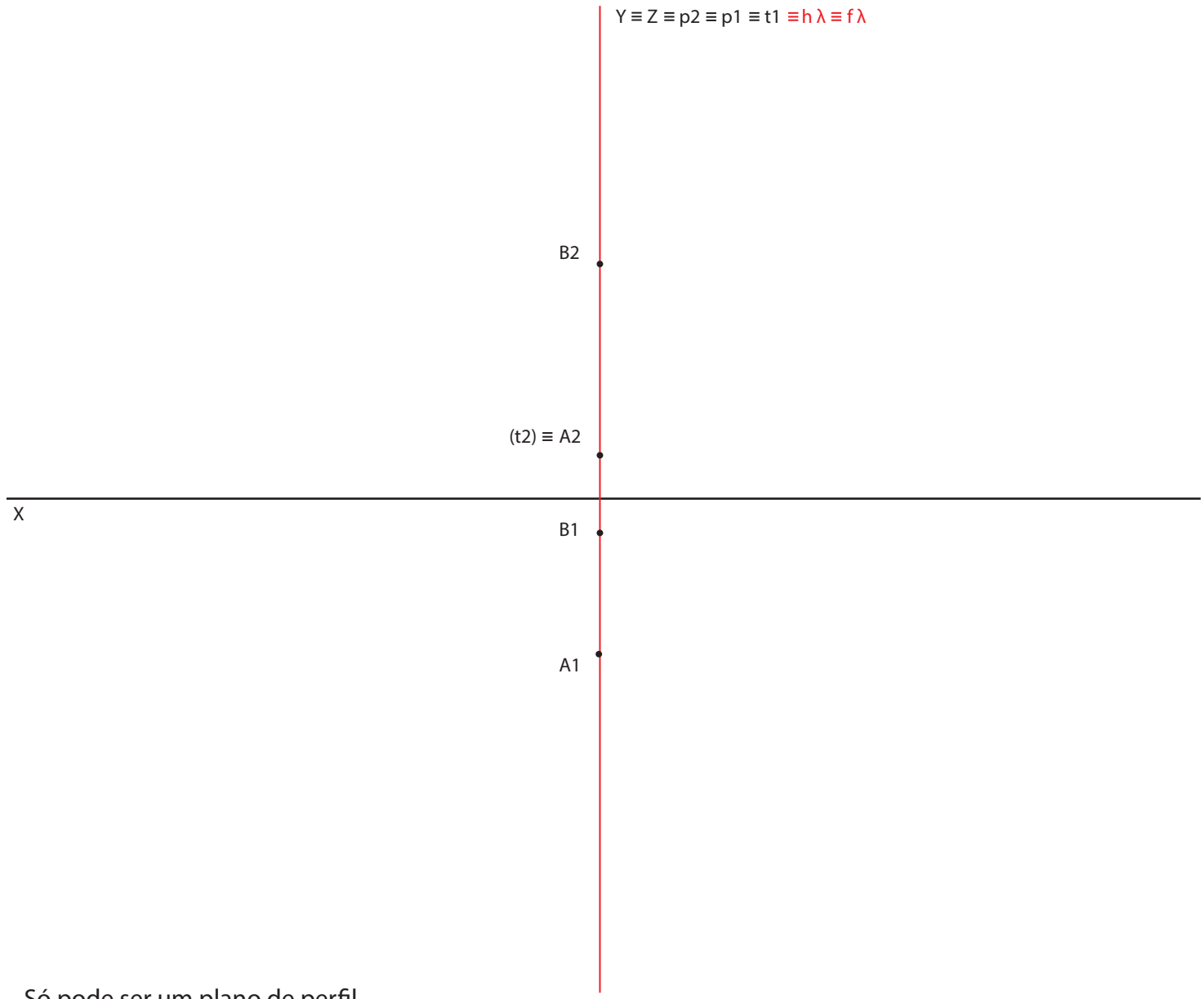

Y ≡ Z
b2 ≡ f Ψ
a2
m2
F2 m ≡ B2
A2
B1 ≡ F1 m
X ≡ b1
M1 ≡ M2
A1
a1
m1
h Ψ



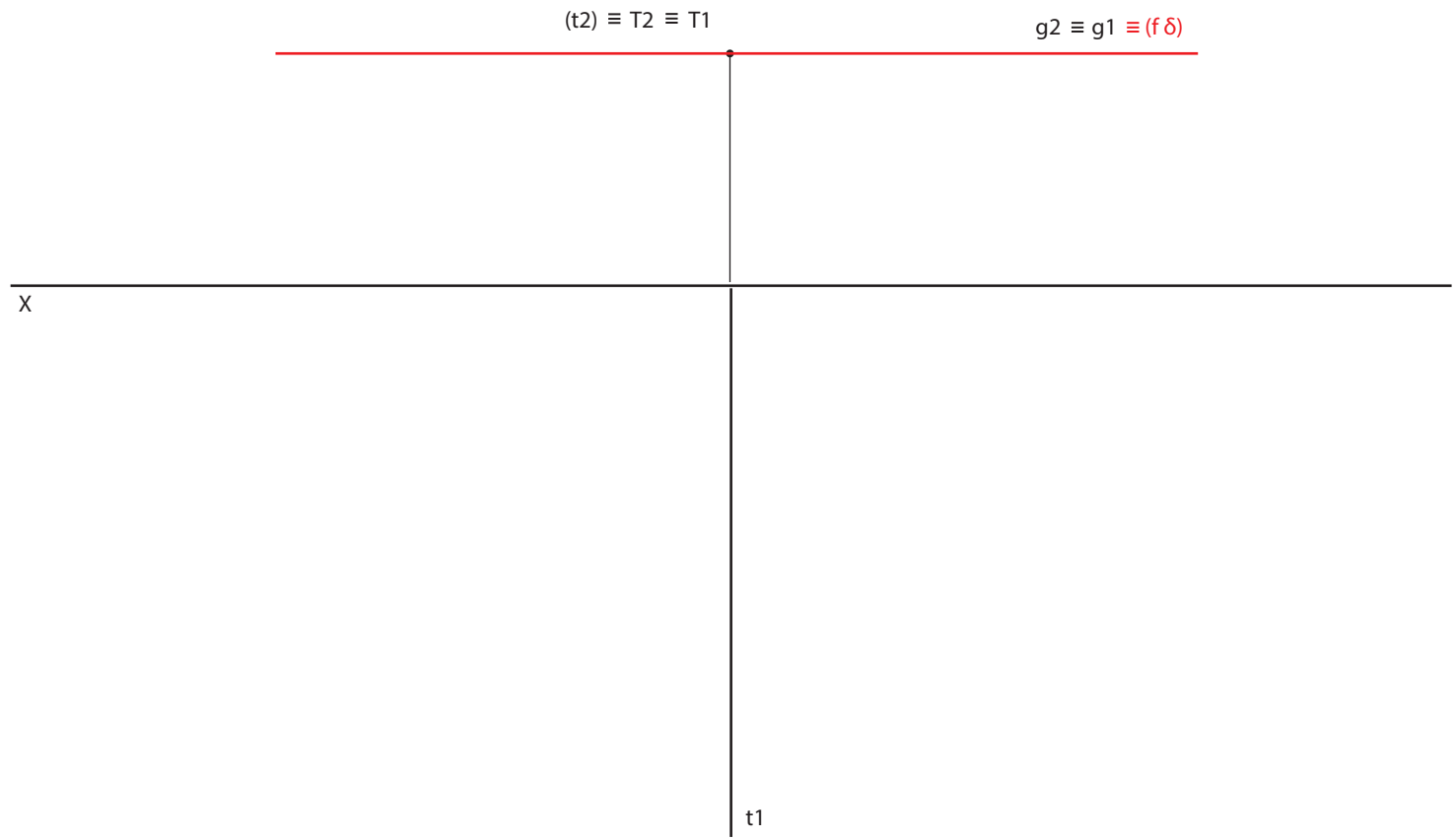
Como os pontos A e C são traços, não é preciso desenhar uma reta que os contenha.
Podes desenhar os traços do plano diretamente.

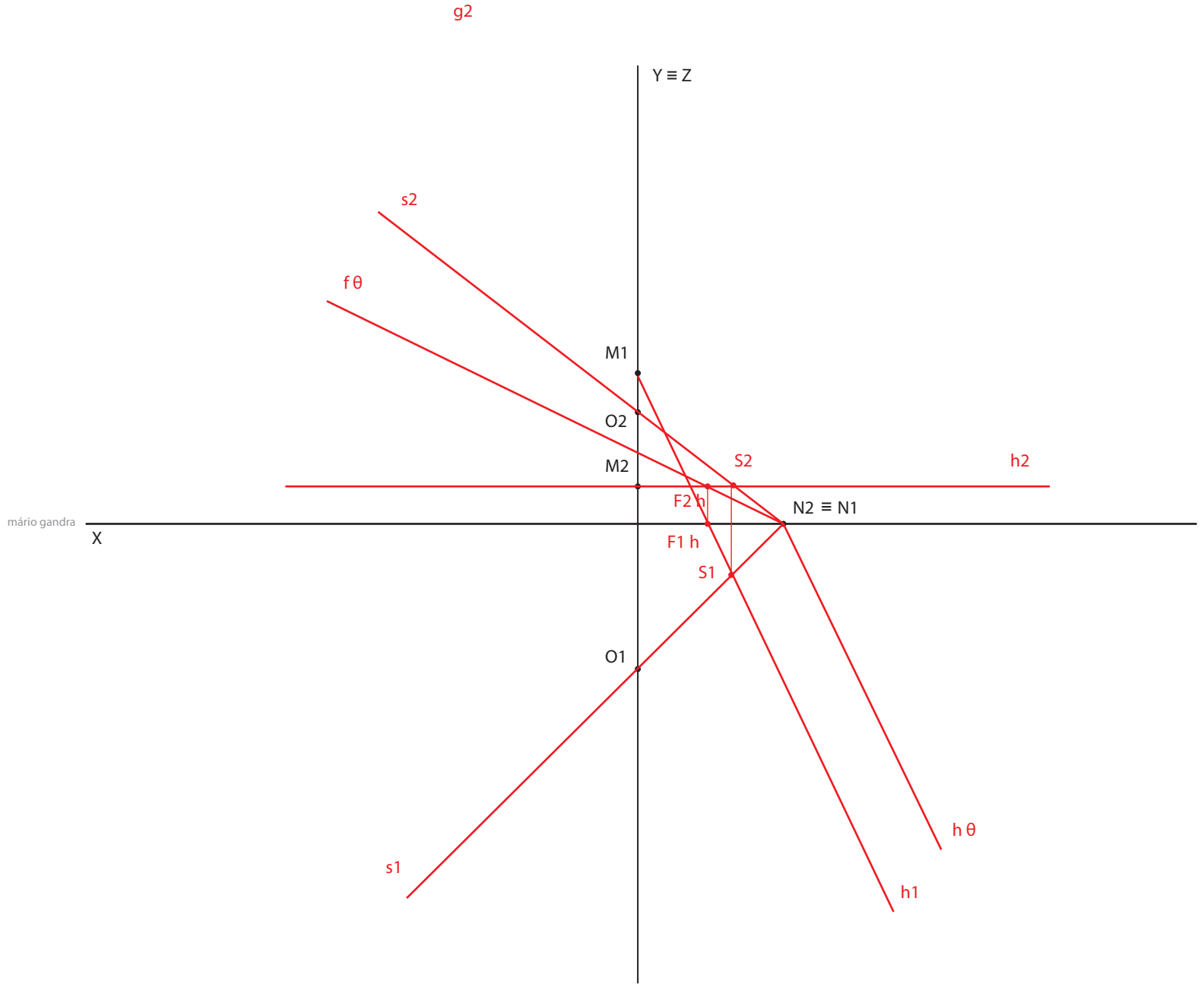


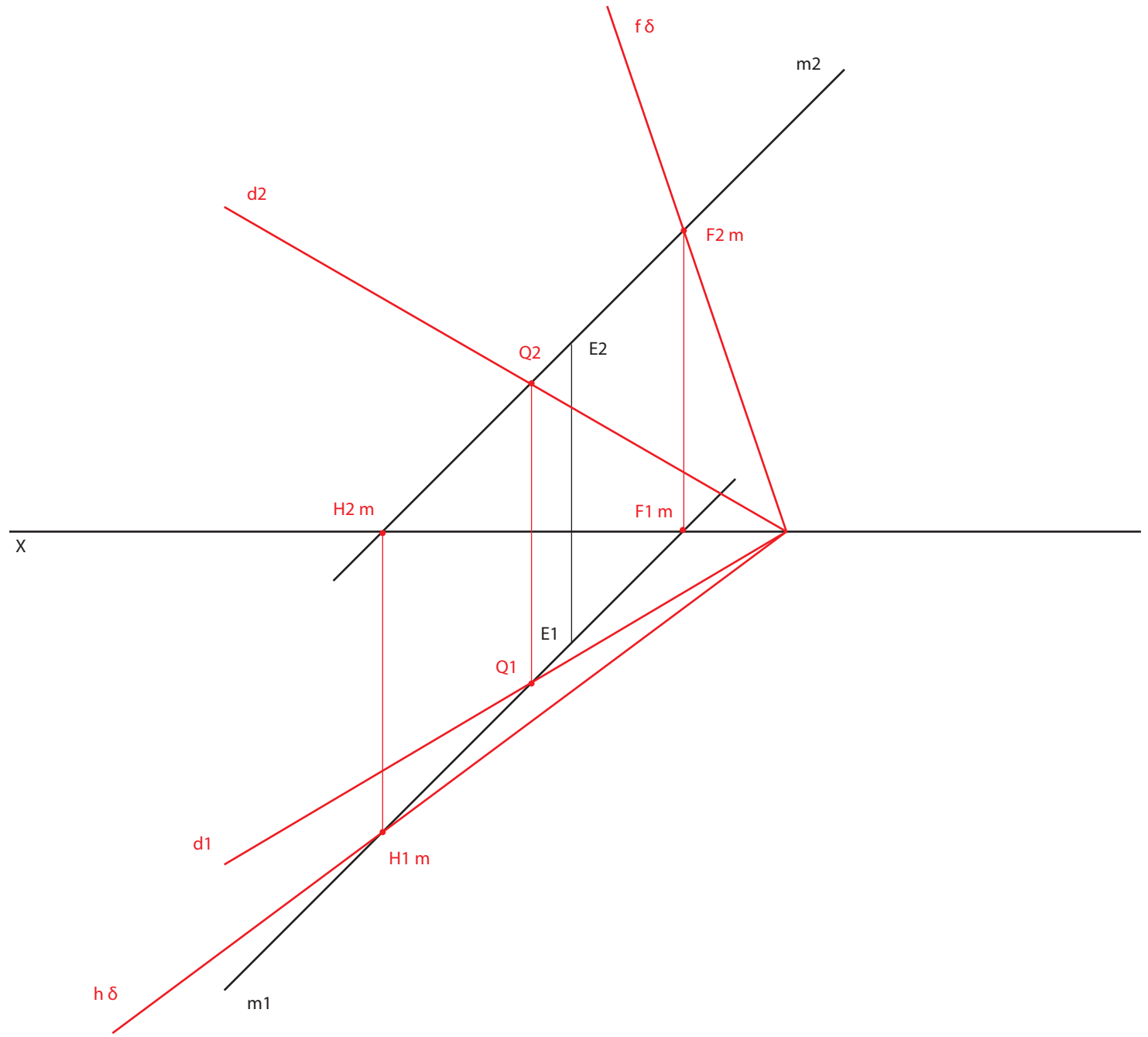

i2 ≡ i1
f φ
m2
M2 ≡ M1
F2 m
X
F1 m
m1
h φ

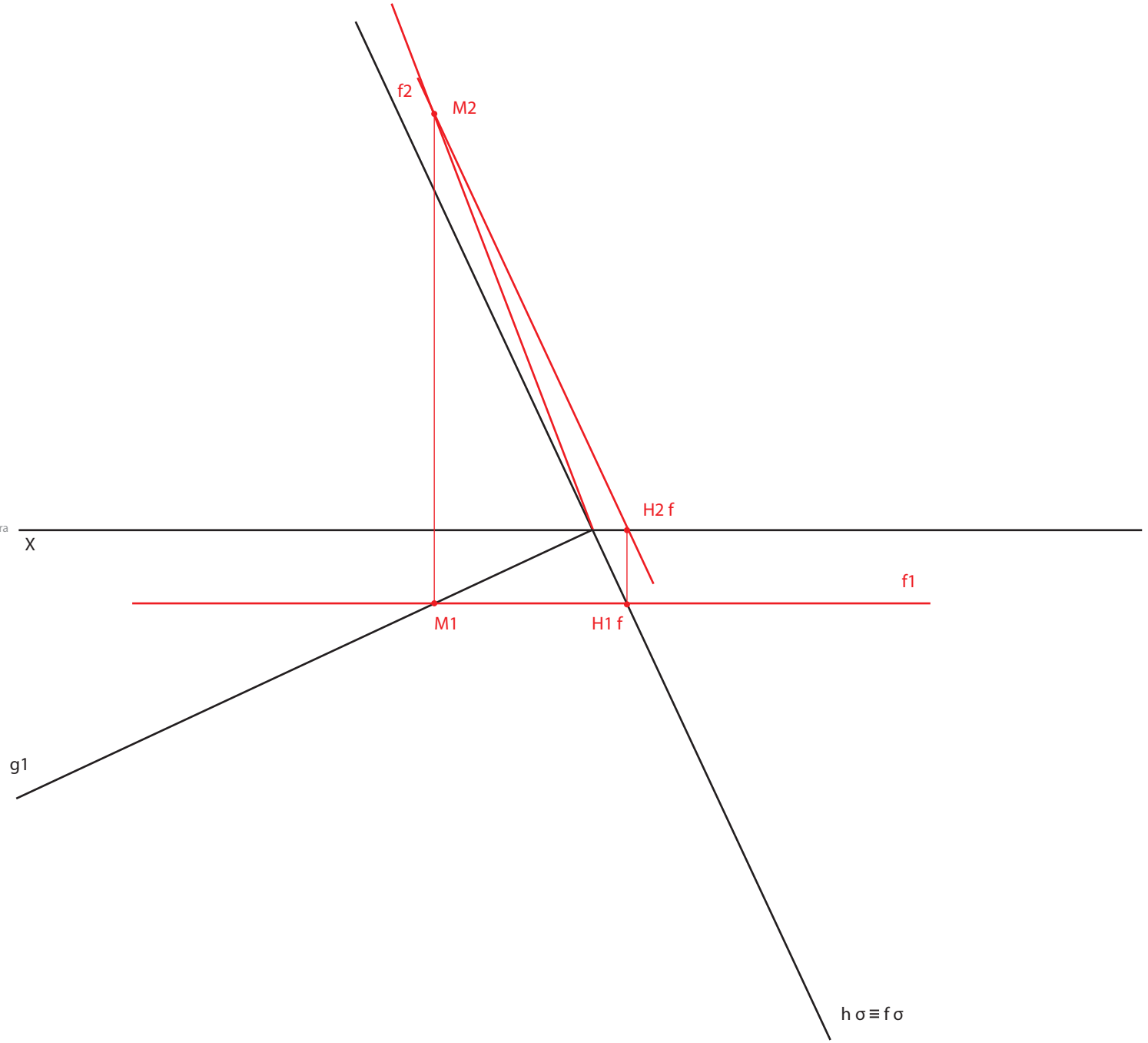


Só pode ser um plano de perfil.

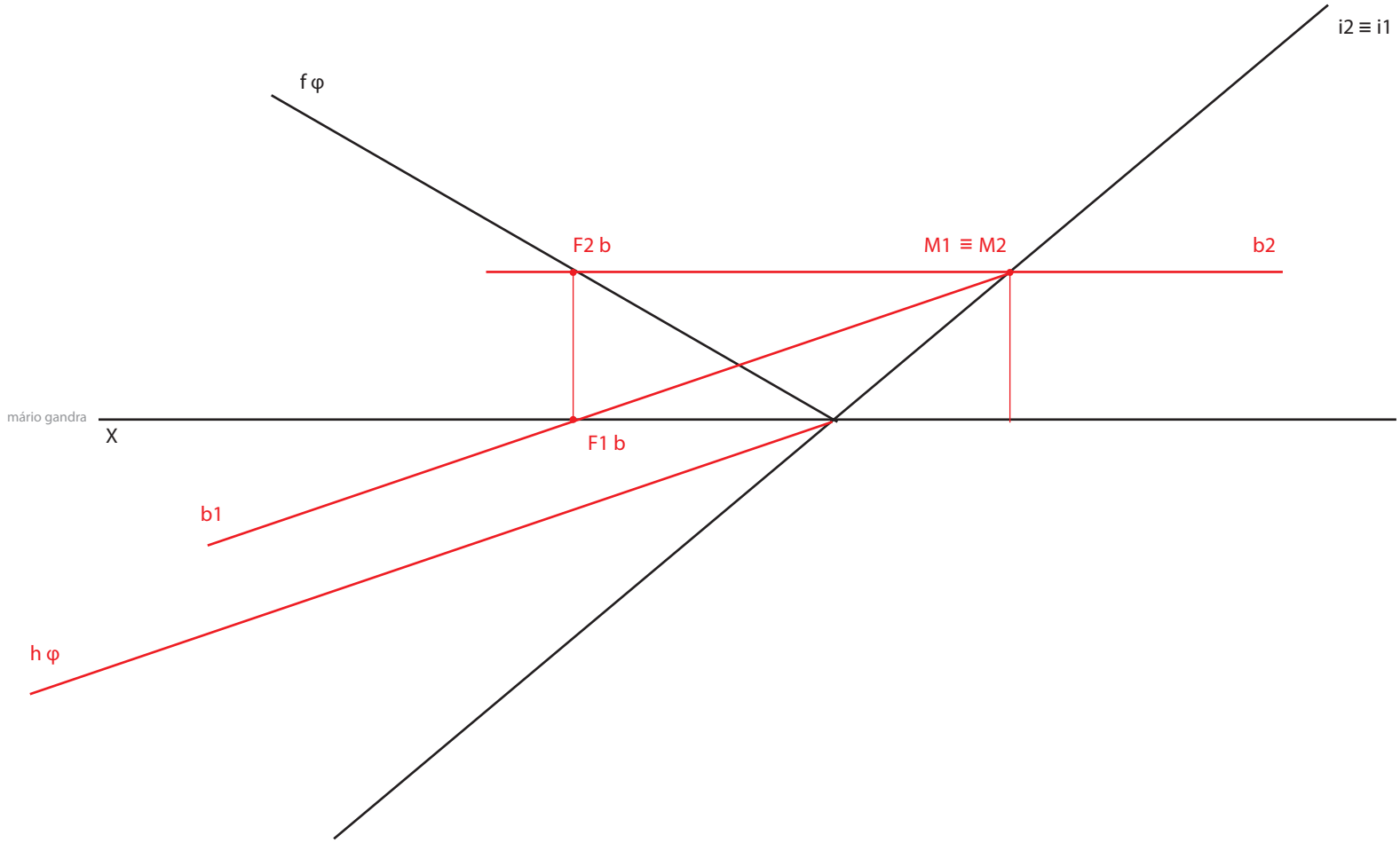

(t2) ≡ T2 ≡ T1
g2 ≡ g1 ≡ (f δ)
X
t1

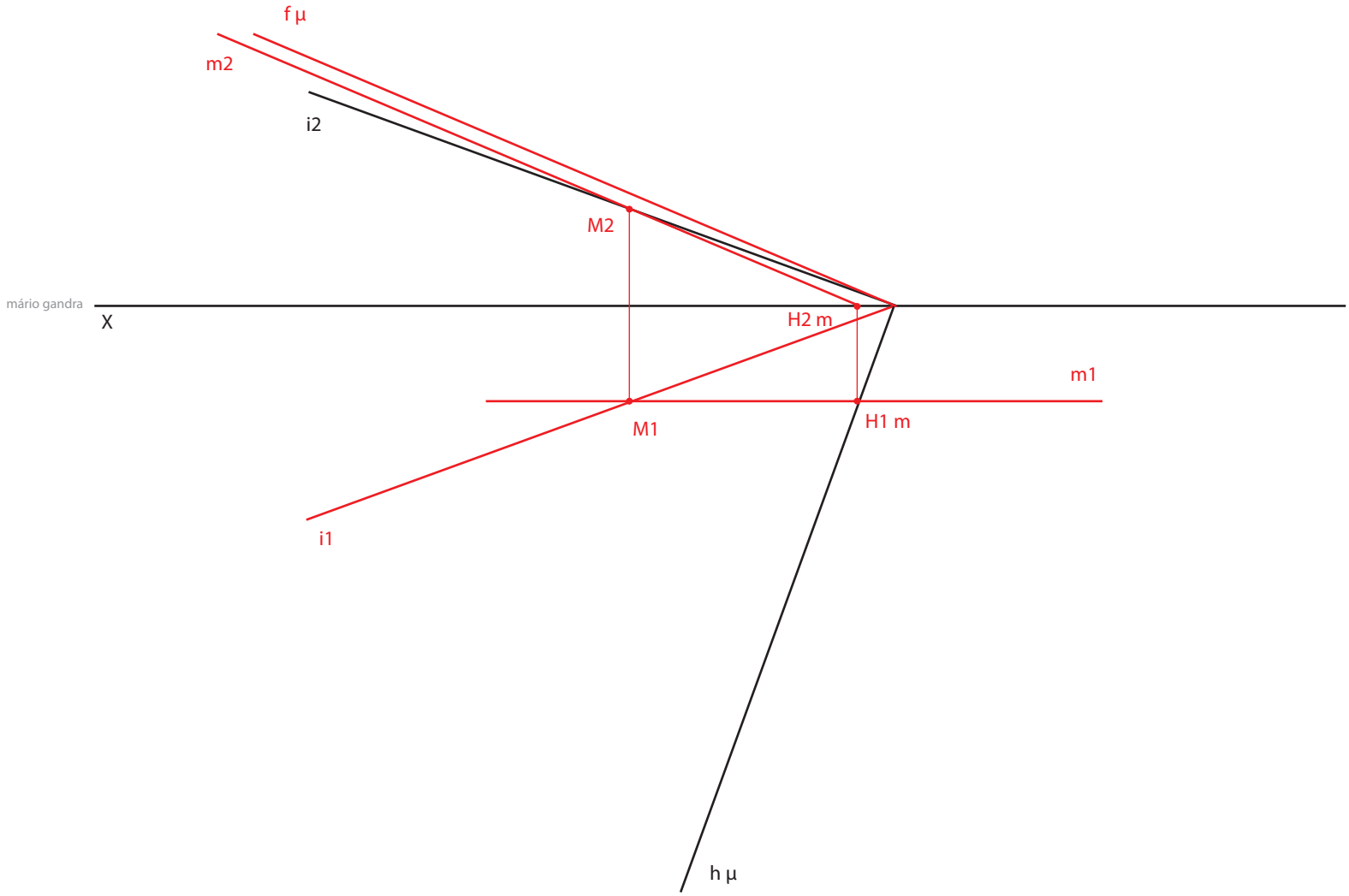

g2
Y ≡ Z
s2
f θ
M1
O2
M2
S2
h2
F2 h
N2 ≡ N1
X
F1 h
S1
O1
h θ
s1
h1

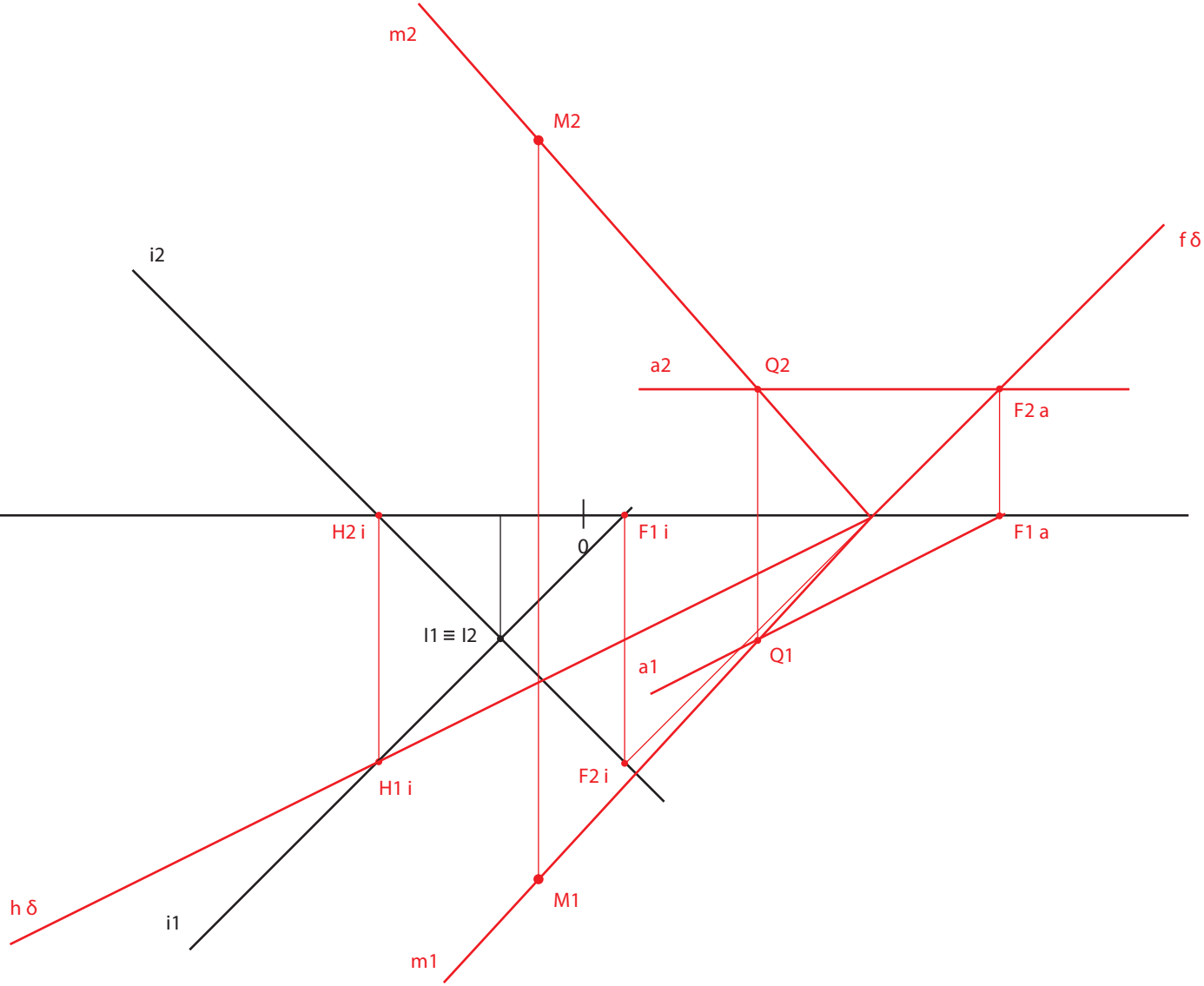

f δ
m2
d2
F2 m
Q2
E2
H2 m
F1 m
X
E1
Q1
d1
H1 m
h δ
m1

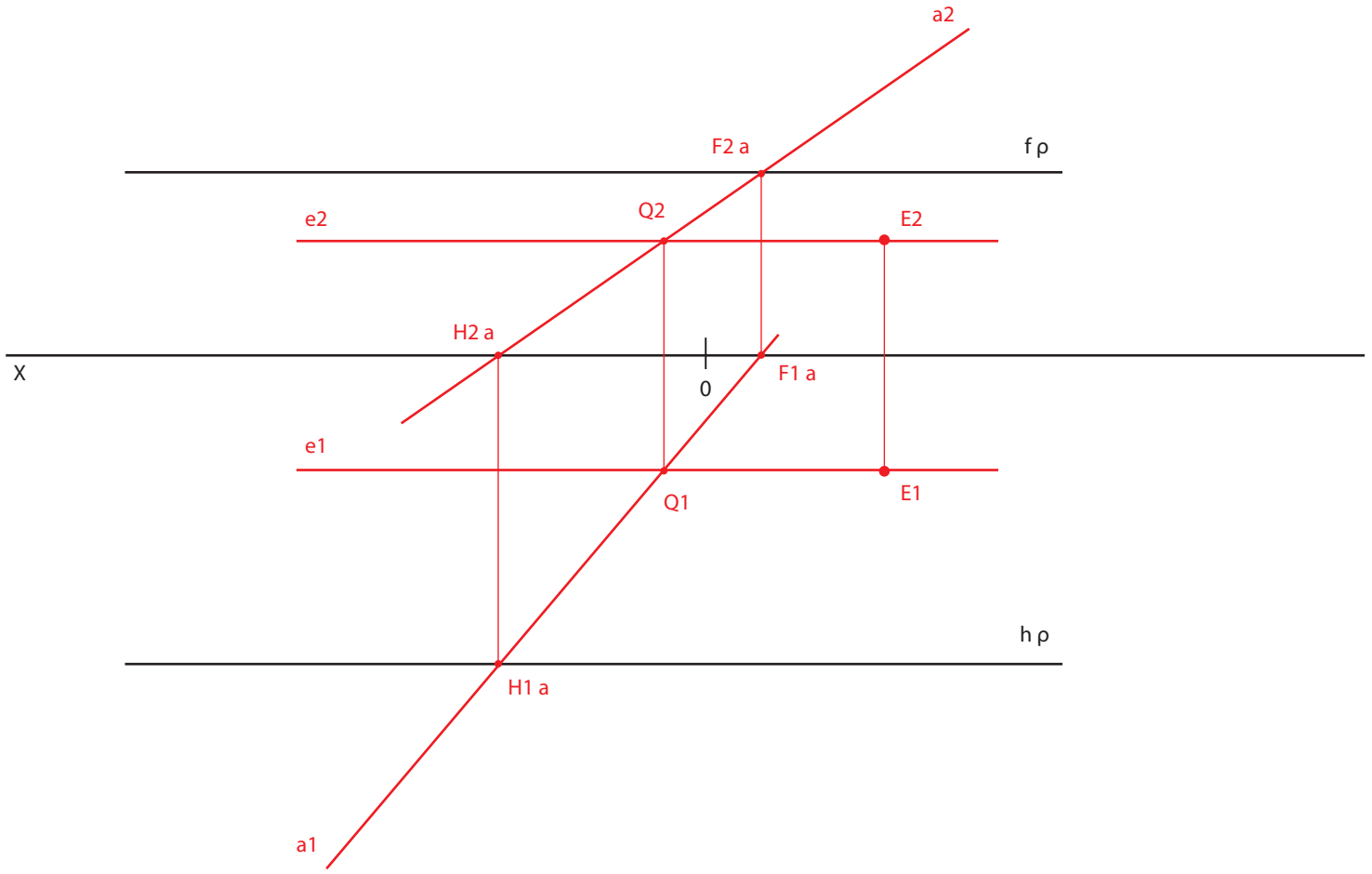


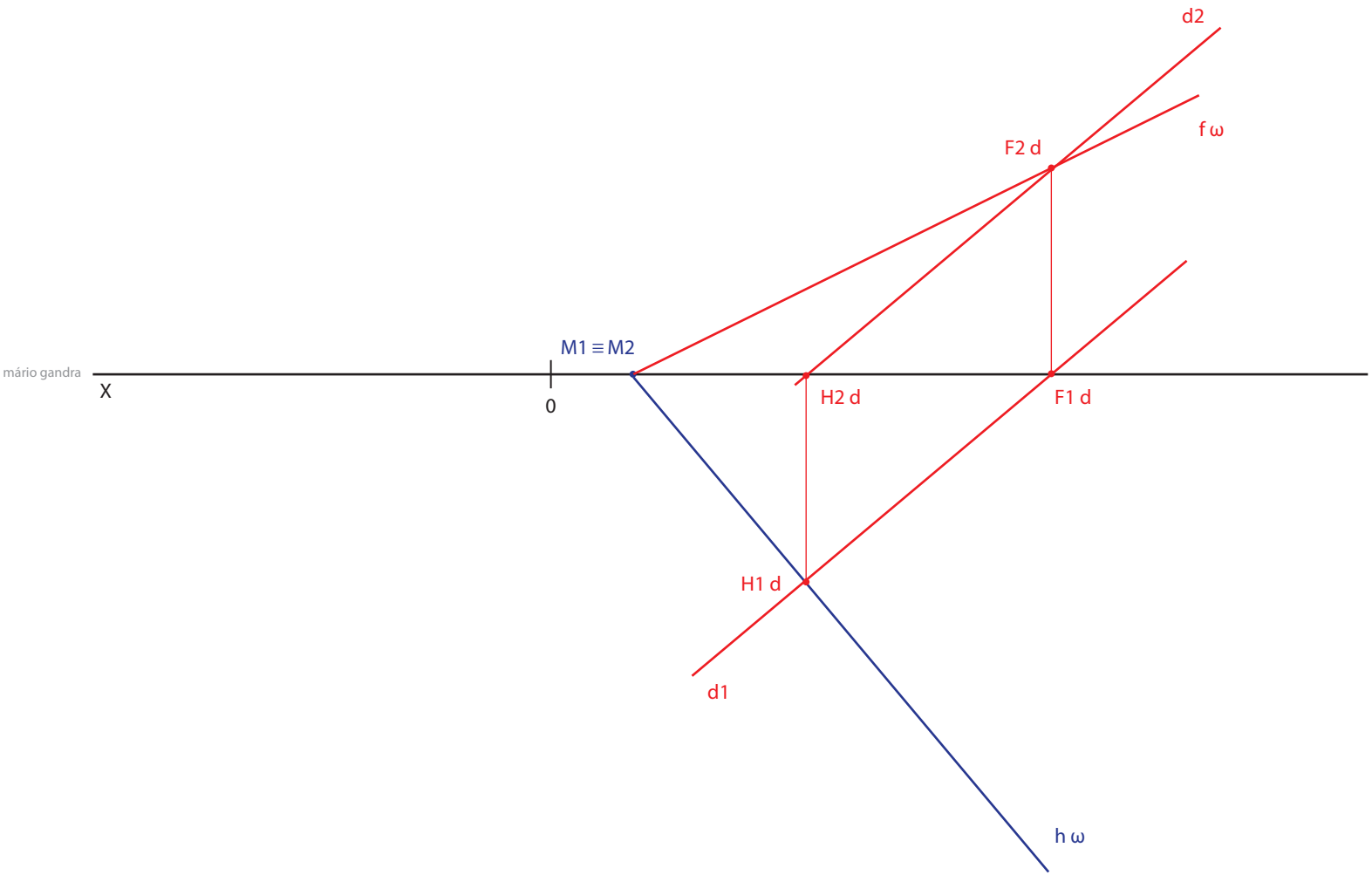
A reta g é uma das retas de maior declive do plano.

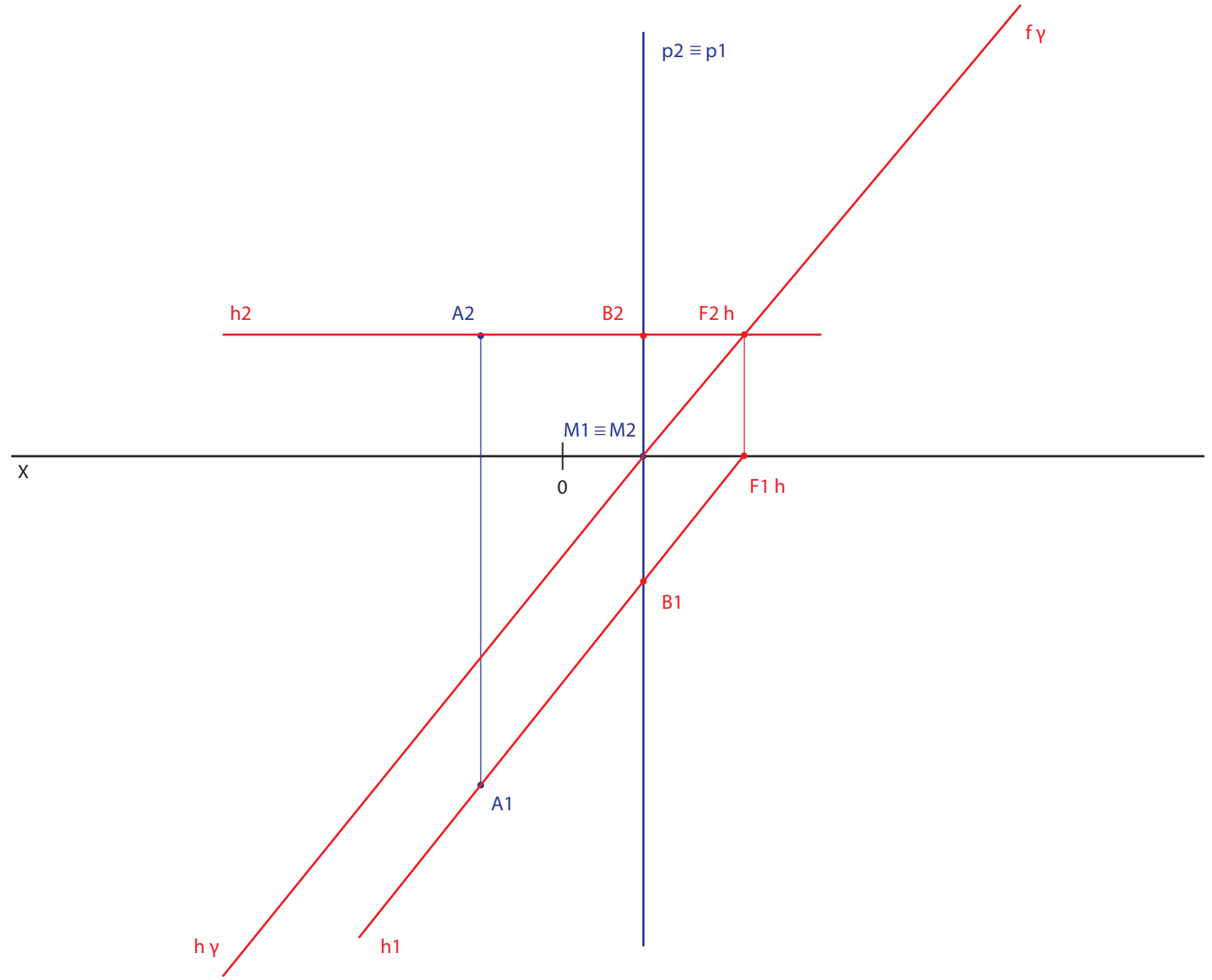

i2 ≡ i1
f φ
F2 b
M1 ≡ M2
b2
X
F1 b
b1
h φ




m2
M2
f δ
i2
a2
Q2
F2 a
X
H2 i
0
F1 i
F1 a
I1 ≡ I2
a1
Q1
H1 i
F2 i
h δ
i1
M1
m1


a2
F2 a
f ρ
e2
Q2
E2
H2 a
X
0
F1 a
e1
Q1
E1
h ρ
H1 a
a1


d2
f ω
F2 d
M1 ≡ M2
X
0
H2 d
F1 d
H1 d
d1
h ω


p2 ≡ p1
f γ
h2
A2
B2
F2 h
M1 ≡ M2
X
0
F1 h
B1
A1
h γ
h1