In[40]:=
```
n
```

In[43]:=
```
n = p3 × p4 / Norm[p3 × p4];
```

In[56]:=
```
Simplify[Grad[Dot[n, p1], p1] == n]
```

Out[56]=
```
True
```

In[49]:=
```
Simplify[Grad[Dot[n, p1], p3] == -(p4 × p1 + n × p4 Dot[n, p1]) / Norm[p3 × p4]]
```

In[50]:=
```
Grad[Dot[n, p1], p3] /. {p1x → 0.5, p1y → 0.6, p1z → 1.9, p3x → 1.1,
  p3y → 0.6, p3z → 0.9, p4x → 0.8, p4y → -0.75, p4z → -1.2, Abs → abs}
```

Out[50]=
```
{0.017129, -0.776515, 0.496741}
```

In[52]:=
```
(p4 × p1 + n × p4 Dot[n, p1]) / Norm[p3 × p4] /. {p1x → 0.5, p1y → 0.6, p1z → 1.9,
  p3x → 1.1, p3y → 0.6, p3z → 0.9, p4x → 0.8, p4y → -0.75, p4z → -1.2, Abs → abs}
```

Out[52]=
```
{0.017129, -0.776515, 0.496741}
```

In[53]:=
```
Grad[Dot[n, p1], p4] /. {p1x → 0.5, p1y → 0.6, p1z → 1.9, p3x → 1.1,
  p3y → 0.6, p3z → 0.9, p4x → 0.8, p4y → -0.75, p4z → -1.2, Abs → abs}
```

Out[53]=
```
{-0.0121683, 0.551629, -0.352881}
```

In[55]:=
```
-(p3 × p1 + n × p3 Dot[n, p1]) / Norm[p3 × p4] /. {p1x → 0.5, p1y → 0.6, p1z → 1.9,
  p3x → 1.1, p3y → 0.6, p3z → 0.9, p4x → 0.8, p4y → -0.75, p4z → -1.2, Abs → abs}
```

Out[55]=
```
{-0.0121683, 0.551629, -0.352881}
```