```
================================================================================
{
dipmsh_->get_center(pt2, dip_idx);
dipfld_->value(P,dip_idx);

Vector radius = pt - pt2; // detector - source
Vector valuePXR = Cross(P, radius);
double length = radius.length();

mag_field += valuePXR / (length * length * length);
}

mag_field *= one_over_4_pi;
magmagfld_->set_value(Dot(mag_field, normal),idx);
magfld_->set_value(mag_field,idx);

================================================================================
```

$B_{sci} = -1.73e^{-6}\ T\ at\ node\ \boldsymbol{pt}\ (388, -231, 474)\ due\ to\ dipole\ of\ strength\ (0,0,1)\ at\ \boldsymbol{pt2}(31, -16, 432)$

$radius\ =\ pt\ -\ pt2\ =\ (-357, 215, -42)$

$$valuePXR = \begin{vmatrix} \hat{\imath} & \hat{\jmath} & \hat{k} \\ 0 & 0 & 1 \\ -357 & 215 & -42 \end{vmatrix} = -215\hat{\imath} - 357\hat{\jmath}$$

$length = radius.length(\quad) = \sqrt{(pt - pt2\ )^2} = 418.8$

$B_{cal} = \frac{1}{4\pi}\left(\frac{-215i-357j}{418.8\times418.8\times418.8}\right) = (2.32e^{-7}\hat{\imath} - 3.86\ e^{-7}\hat{\jmath}\ )\ Tesla$

```
================================================================================
```