

In[1]:= **r01vec = a / 2 { -1, -Tan[Pi/6], 0 }**

$$\text{Out[1]} = \left\{ -\frac{a}{2}, -\frac{a}{2\sqrt{3}}, 0 \right\}$$

In[2]:= **r02vec = a / 2 { 1, -Tan[Pi/6], 0 }**

$$\text{Out[2]} = \left\{ \frac{a}{2}, -\frac{a}{2\sqrt{3}}, 0 \right\}$$

In[3]:= **r03vec = FullSimplify [a { 0, Sin[Pi/3] - 1 / 2 Tan[Pi/6], 0 }]**

$$\text{Out[3]} = \left\{ 0, \frac{a}{\sqrt{3}}, 0 \right\}$$

In[4]:= **r01vec.r01vec**

$$\text{Out[4]} = \frac{a^2}{3}$$

In[5]:= **r02vec.r02vec**

$$\text{Out[5]} = \frac{a^2}{3}$$

In[6]:= **r03vec.r03vec**

$$\text{Out[6]} = \frac{a^2}{3}$$

In[7]:= **Hvec = i / (2 Pia ^ 2 / 3) Cross[{ 0, 0, 1 }, -r01vec - r02vec + r03vec]**

$$\text{Out[7]} = \left\{ -\frac{\sqrt{3} i}{a \pi}, 0, 0 \right\}$$

In[8]:= **Bvec = 4 Pi * 10 ^ (-7) Hvec**

$$\text{Out[8]} = \left\{ -\frac{\sqrt{3} i}{2500000 a}, 0, 0 \right\}$$

In[9]:= **Bvec /. { i -> 10, a -> 3 / 10 }**

$$\text{Out[9]} = \left\{ -\frac{1}{25000 \sqrt{3}}, 0, 0 \right\}$$

In[10]:= **N[%, 20] * 10 ^ 5**

$$\text{Out[10]} = \{-2.3094010767585030580, 0, 0\}$$