|  |
| --- |
| **Problem 33.42** |
| A long wire carrying a 5.0 A current perpendicular to the *xy*-plane intersects the *x*-axis at x\,=\: -\, 2.0\;{\rm cm} . A second, parallel wire carrying a 3.0 A current intersects the *x*-axis at x\,=\:+\; 2.0\;{\rm cm} .   |  |  | | --- | --- | | Part A |  | | At what point on the *x*-axis is the magnetic field zero if the two currents are in the same direction?   |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | ANSWER: | |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | x = | ***Answer not displayed*** | m |  | | | | | Part B |  | | At what point on the *x*-axis is the magnetic field zero if the two currents are in opposite directions?   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | ANSWER: | |  |  |  |  | | --- | --- | --- | --- | |  | x = | ***Answer not displayed*** | m | | | | |

|  |
| --- |
| **Problem 33.6** |
| |  |  | | --- | --- | | Part A |  | | What is the magnetic field strength at the dot in the figure? http://session.masteringphysics.com/problemAsset/1074669/3/33.Ex06.jpg  **Express your answer using two significant figures.**   |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | ANSWER: | |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | B = | **2.8×10−16** ***Correct*** | {\rm T} |  | | | | | Part B |  | | What is the magnetic field strength at the dot in the figure?   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | ANSWER: | |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | |  |  | | --- | --- | |  | to the left | |  | to the right | |  | into the page | |  | out of the page | |  | another direction | |  | ***Answer not displayed*** | | | | |