**PreQuiz 16-17.2**

**Vector Fields**

Name

Favorite TV Show

**Each grid line is a meter. Charge A is +12.4 x 10-6 C, and charge B is -36.1 x 10-6 C. Find the electric field at the origin. Draw the vector as an arrow with its tail on the origin, and label the angle you calculated. Carry at least 4 sig figs for your calculations.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  | **y** |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | **A** |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  | **B** |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  | **x** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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Fill this in:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **magnitude** | **trig. angle (opt)** | **x** | **y** |
| EA |  |  |  |  |
| EB |  |  |  |  |
|  |  | EA + EB |  |  |
|  |  |  | Magnitude | Trig Angle |
|  |  |  |  |  |

|  |  |
| --- | --- |
| Mag | Trig Angle |
| 2718.93 | 321.34 |
| 12981.56 | 36.87 |

|  |  |  |
| --- | --- | --- |
| 2123.13 | -1698.5 |  |
| 10385.2 | 7788.94 |  |
| **12508.37** | **6090.44** | **N/C** |
| mag | Trig Angle |  |
| **13912.3 N/C** | **25.9619o** |  |