**Vector Forces:**

**Find the net force on each charge:**

34.0 cm

51.0 cm

+26.0 μC

-14.0 μC

+42.0 μC

A: 14.7 N right

B: 7.98 N left

C: 6.74 N left

**Find the net force on each charge:**

81.0 cm

19.0 cm

-42.0 μC

-16.0 μC

+12.0 μC

A: 4.68 N left

B: 52.0 N right

C: 52.3 N left

**Find the net force on each charge:**

16.0 cm

32.0 cm

+12.0 μC

+18.0 μC

+48.0 μC

A: 98.3 N left

B: 0 N

C: 98.3 N right

**Vector Force 1: Each grid line is a meter. Charge A is +12.6 x 10-6 C, and charge B is +19.3 x 10-6 C,**

**and C is -25.1 x 10-6 C. Carry at least 4 sig figs for your calculations.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  | **B** | **y** |  |  |  |  |  |  |
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|  |  | **A** |  |  |  |  |  |  |  |  |  |  | **C** |
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Calculate the force **on charge A** as a magnitude and a direction. The direction should be a trig angle. Draw the force vector above

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **magnitude** | **trig. angle**  | **x-comp** | **y-comp** |
| FBA |  |  |  |  |
| FCA |  |  |  |  |
|  |  | FBA + FCA |  |  |
|  |  |  | Magnitude | Trig Angle |
|  |  |  |  |  |

Calculate the force **on charge B** as a magnitude and a direction. The direction should be a trig angle. Draw the force vector above

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **magnitude** | **trig. angle**  | **x-comp** | **y-comp** |
| FAB |  |  |  |  |
| FCB |  |  |  |  |
|  |  | FAB + FCB |  |  |
|  |  |  | Magnitude | Trig Angle |
|  |  |  |  |  |