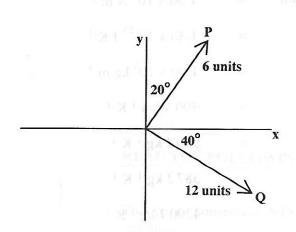
| 1. | (a) | State the difference between vector and scalar quantities and give TWO examples of each |
|----|-----|-----------------------------------------------------------------------------------------|
|----|-----|-----------------------------------------------------------------------------------------|

Acceleration due to gravity $\frac{9.80~\text{m}~\text{s}^{-2}}{\text{Radius of the Earth}} = \frac{9.80~\text{m}~\text{s}^{-2}}{\text{C}_{3}} = \frac{9.80~\text{m}~\text{s}^{-2}}{\text{C}_{3}}$

[3 marks]

(b) Using the information shown in Figure 1, complete the table to show the components of the vectors P and Q and the components of P - Q.

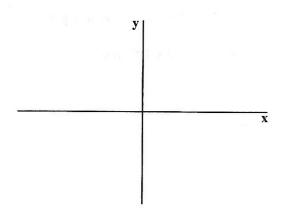


| vector | x component | y component |
|--------|-------------|-------------------|
| P | | and the second |
| Q | | |
| P - Q | y of cupper | visuoimes lamasi' |

Figure 1

[4 marks]

(ii) On the axes below draw a labelled vector through the origin representing the vector P - Q. (Show your calculations in the space next to the diagram).



[3 marks]

Total 10 marks