Questions

1 a Draw a single line from the key word to the definition.

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| --- | --- | --- |
| Scalar |  | Scientific quantities that have a magnitude and direction |
|  |  |  |
| Vector |  | Scientific quantities that have a magnitude but no direction |

2 Sort these quantities into scalar and vector.

Distance speed momentum power acceleration energy displacement

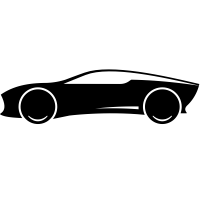
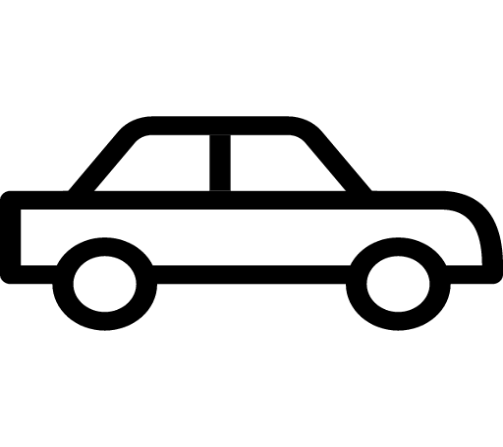
mass volume temperature force pressure velocity weight

|  |  |
| --- | --- |
| **Scalar** | **Vector** |
|  |  |

3 Car (A) is driving -21 m/s west with a forward thrust of 1500N. Car (B) is driving 30 m/s east with a forward thrust of 2000N. Show this information as force arrows on the diagrams below.

B

A



4 The length of the arrows are important for displaying information of the force. Describe how the length of the arrows would change if Car B accelerated from 30 m/s to 35 m/s.