The Scalar Product: Questions

Ritwik Anand

A selection of questions for the study guide on the Scalar Product

*Before attempting these questions, it is highly recommended that you read* [*Guide: The Scalar Product*](Scalar_Product2.qmd)*, as well as the* [*Guide: Introduction to Quadratic Equations*](introtoquadratics.qmd)*.*

## Questions

### Q1

Find the scalar product of **u** and **v**.

1.1. **u** and **v**

1.2. **u** and **v**

1.3. **u** and **v**

1.4. **u** and **v**

1.5. **u** and **v**

1.6. **u** and **v**

1.7. **u** and **v**

1.8. **u** and **v** .

What can you say about the result of (1.8.)? Can you deduce similar conclusions for the scalar product of different combinations of the base vectors , , ?

### Q2

Find the value(s) of for which **u** and **v** are perpendicular.

2.1. **u** and **v**

2.2. **u** and **v**

2.3. **u** and **v**

2.4. **u** and **v**

2.5. **u** and **v**

2.6. **u** and **v**

2.7. **u** and **v**

2.8. **u** and **v**

## Q3

Using the Geometric Definition of Scalar Products, find the angle in between **u** and **v** in degrees to 1 decimal point.

3.1. **u** and **v**

3.2. **u** and **v**

3.3. **u** and **v**

3.4. **u** and **v**

3.5. **u** and **v**

3.6. **u** and **v**

3.7. **u** and **v**

3.8. **u** and **v**