

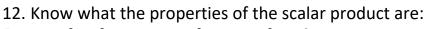
Vectors

1. Please give yourself every opportunity for success, speak with your parents, and subscribe to the exam Enhanced opportunities, focused Online Study Pack today at brighter www.highermathematics.co.uk future! 2. Have read the HSN Theory Guides on Vectors 3. Have tried the excellent worksheets in Section 2 of the Vectors website link which includes Essential Skills, Essential Skills Exam Practice and Grade Booster resources 4. Confident with SQA Past Paper questions on Vectors 5. Know what the following terms are and be able to find them in both 2-D and 3-D: Vector, Magnitude, Direction, Scalar, Position Vector, Unit Vector, Zero Vector, Directed Line Segment, Component, Scalar **Product** 6. Know the addition, subtraction and multiplication properties of vectors 7. Can determine the position between two points in 3-D 8. Know that v = ku for parallel vectors 9. Be able to divide a line is a given ratio using the section formula (or an equivalent method) 10. Know how to apply the basis vectors i, j & k

11. Know all about the scalar product and how to use
it to find the angle between vectors;
a b - a b aaad

$$a. b = |a||b|cos\emptyset$$

 $a. b = a_1b_1 + a_2b_2 + a_3b_3$



Perpendicular vectors have a.b = 0

For vectors a & b: a.b = b.aFor vectors a, b & c: a.(b+c) = a.b + a.c

