

## Worksheet: Vector Algebra

IB · Class 12 · Mathematics · 3 questions · 12 marks

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Score: \_\_\_\_\_ / 12

**Q1.** Find the angle between  $a = 2\hat{i} - 5\hat{j} + k$  and  $b = \hat{i} + 52k$ . [3 marks]

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**Q2.** Find the area of a triangle with vertices  $A(1, 2, 3)$ ,  $B(2, 1, 4)$ ,  $C(4, 5, 1)$ . [4 marks]

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**Q3.** Show that vectors  $a = \hat{i} - 2\hat{j} + 3k$ ,  $b = 2\hat{i} + 354k$ ,  $c = \hat{i} - 35\hat{j} + 5k$  are coplanar. [5 marks]

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