



NSW Education Standards Authority

2022 HIGHER SCHOOL CERTIFICATE EXAMINATION

Mathematics Extension 1

General**Instructions**

- * Reading time -- 10 minutes
- * Working time -- 2 hours
- * Write using black pen
- * Calculators approved by NESA may be used
- * A reference sheet is provided at the back of this paper
- * For questions in Section II, show relevant mathematical reasoning and/or calculations
- * Write your Centre Number and Student Number on all Writing Booklets attached

Total marks:
70**Section I -- 10 marks** (pages 2-6)

- * Attempt Questions 1-10
- * Allow about 15 minutes for this section

Section II -- 60 marks (pages 2-6)

- * Attempt Questions 11-14
- * Allow about 1 hour and 45 minutes for this section

Given that $a = \frac{1}{2}$
and $b = \frac{3}{4}$, evaluate $a + b$

$\frac{1}{2} + \frac{3}{4}$

Given that $p = (1,0)$
and $q = (0,3)$
, evaluate $p * q$
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