



# MATHS

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MATHS (ENGLISH)

COMPLEX NUMBERS

## Examples

1. Evaluate  $(5 - 7i) + (2 + 4i)$ .



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2. Evaluate  $(4 + 5i)(2 - 3i)$



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3. Evaluate  $\frac{2 - 7i}{3 + 5i}$



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Exercise

1.  $i^{29} =$

A. 1

B.  $i$

C.  $-i$

D.  $-1$

**Answer: B**



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2. Evaluate  $(2 + 3i)(4 - 5i)$ .

A.  $-7 - 23i$

B.  $-7 + 2i$

C.  $23 - 7i$

D.  $23 + 2i$

**Answer: D**



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3. Evaluate  $\frac{i}{2-i}$ .

A.  $-1 + \frac{1}{2}i$

B.  $\frac{1}{5} - \frac{2}{5}i$

C.  $-\frac{1}{5} + \frac{2}{5}i$

D.  $-1 + 2i$

**Answer: C**



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4. If  $z = 8 - 2i$ ,  $z^2 =$

A.  $60 - 32i$

B.  $64 + 4i$

C.  $64 - 4i$

D.  $60$

**Answer: A**



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5. IF  $z$  is the complex number shown in the figure , which of the following points could be  $iz$  ?



A. A

B. B

C. C

D. D

**Answer: B**



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6. which of the following is the modulus of  $2 + i$ ?

A.  $\sqrt{2}$

B. 2

C.  $\sqrt{3}$

D.  $\sqrt{5}$

**Answer: D**



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