

FP1 Quiz 2

- 1) What is the argument of $2 - 2i$?
- $\frac{\pi}{4}$
 - $\frac{3\pi}{4}$
 - $\frac{-\pi}{4}$
 - $\frac{-3\pi}{4}$
 - $\frac{2\pi}{4}$
- 2) $\sum_{r=1}^{17} r^3 =$
- 23410
 - 23408
 - 29241
 - 23409
 - 1785
- 3) The transformation represented by $M = \begin{pmatrix} 1 & -1 \\ 1 & 1 \end{pmatrix}$ is
- A rotation of $\frac{\pi}{4}$ anticlockwise about the origin.
 - A reflection in the y axis.
 - A rotation of $\frac{\pi}{4}$ anticlockwise about the origin together with an enlargement by a factor $\sqrt{2}$.
 - A rotation of $\frac{\pi}{4}$ clockwise about the origin.
 - None of these.
- 4) If $x = 2$ is a root of $x^3 - 6x^2 + 16x - 16$ then the other two roots are
- $x = 2 + 2i$ and $x = 2 - 2i$
 - $x = -2 + 2i$ and $x = -2 - 2i$
 - $x = 1 + i$ and $1 - i$
 - $x = -2 - 2i$ and $x = 2 - 2i$
 - $x = 2$ and $x = 4$
- 5) Find the square roots of $15 + 8i$
- $4 - i$ and $-4 + i$
 - $4 + i$ and $-4 - i$
 - $4 + i$ and $-4 + i$
 - $4 + i$ and $4 - i$
 - $\sqrt{15} + 2\sqrt{2}i$

- 1) C
- 2) D
- 3) C
- 4) A
- 5) B