

BHASVIC MaTHS

A2 Doubles summer assignment *Answers 4*

Section: *FPI*

Past

1. Proof

2. $6 - 16e^{-1}$

3. $\frac{4}{15}$

4. a) 4.4, 95.6, b) 199.5, 340.5, c) $\frac{-\pi}{6}, \frac{\pi}{2}$

5. Proof

Present

6. 87.7

7. 40

8. a) proof, b) 106.8, 73.2, c) $\frac{5}{4}$

9. a) $r \cdot \begin{pmatrix} 1 \\ 1 \\ 1 \end{pmatrix} = 6$, b) $r \cdot \begin{pmatrix} 1 \\ 1 \\ 1 \end{pmatrix} = 0$, c) $r \cdot \begin{pmatrix} -1 \\ -1 \\ -1 \end{pmatrix} = -6$, d) $r \cdot \begin{pmatrix} 2 \\ 2 \\ 2 \end{pmatrix} = 16$

10. a) 80.4, b) 90, c) 69.9

11. $r \cdot (-i + 3j - 2k) = 5$ $-x + 3y - 2z = 5$

12. $\frac{\sqrt{110}}{5}$

13. $\frac{\sqrt{30}}{6}$

14. a) $\frac{\sqrt{3290}}{10}$, b) $x = \frac{2}{3}\sqrt{42}$