

## 2007 University Maths Olympics Answers

1. 12
2.  $105^\circ$
3. 28
4. 331
5. 96
6. David, Nick, Sally
7.  $55^\circ$
8.  $\frac{3}{40}$
9. 36
10. 7
11. 120
12. 3
13. 51.005 or  $51 + \frac{1}{200}$
14.  $8^{128}$  or  $2^{384}$
15.  $\frac{1}{14}$
16. 54
17.  $\pi * (3 - 2\sqrt{2})$
18. 9
19. 111
20. 1999
21. 1089
22.  $\frac{417}{512}$
23.  $24 * \sqrt{3}$
24.  $\frac{1+i}{2-\sqrt{2}}$  or  $\frac{(1+i)(2+\sqrt{2})}{2}$
25.  $324^4$  or 11156640625