

## Maths 165

### Review Sheet - Final Solutions

1. 55
2. Underestimate.
3.  $[(1.25)^2 + (1.75)^2 + (2.25)^2 + (2.75)^2](0.5)$ .
4.  $\int_1^7 (f(x) + 3g(x)) dx$ .
5.  $4\pi$ .
6.  $\frac{\sqrt{1+x^{4/3}}}{3x^{2/3}}$ .
7.  $\frac{4}{27}$ .
8. 9.
9.  $\frac{2\pi}{3}$ .
10.  $-\cos(x) + \ln|x| - \frac{1}{x} + C$  for some constant  $C$ .
11.  $\frac{62}{5} - \frac{14}{3} + 2$
12. 24
13.  $(1/3)[10^{3/2} - (50)^{3/2}]$
14.  $\frac{\sin(x^2+1)}{2} + C$
15.  $-e^{\sin 3} + e^{\sin 7}$