

**Simultaneous Equations (One Linear, One Non Linear) – www.m4ths.com**

(Most have integer solutions or are easy to factor)

(1)  $y = x^2 + 2x + 1$   
 $y = 3x + 13$

(2)  $xy = 6$   
 $x + y = 5$

(3)  $y = 1 - x$   
 $x^2 + y^2 = 5$

(4)  $y = 3$   
 $x^2 - y^2 = 16$

(5)  $y + 3x = 0$   
 $x^2 + y - 4 = 0$

(6)  $y = x^2$   
 $x^2 + y = 8$

(7)  $y = \frac{5}{x^2}$   
 $y = 5$

(8)  $xy + x = 10$   
 $2y = 5x - 2$