**The City School**

Boys Campus North Nazimabad

 **Revision Worksheet**

**TOPIC: Functions**

**Q.1:** It is given that f(x) = 2x – 7 and g(x) = x(x – 6).

 a) Find the value of f (- 5).

 b) i) Obtain an expression for f-1(x).

 ii) Find the value of f-1(15).

 c) Find the value of x for which i) g(x) = 0,

 ii) f(x) = g(x).

**Q.2:** Given that f(x) = (3x + 2) / x ,

 a) find f(- 4)

 b) find x when f(x) = 4,

 c) write down the value of f-1(4).

**Q.3:** a) Given that f(x) = 3x + 5, find f (3).

 b) The function g is defined by g(x) = (2x – 3)(x + k). Given that g (0) = -15, find

 i) k, ii) x such that g(x) = 0.

**Q.4:** a) Given that f(x) = x2 – 2px + 3, find

 i) f(- 2), giving your answer in terms of p,

 ii) the value of p when f( - 2) = f(0).

 b) Given that g(y) = y2 – 1, find g (a – 1) in its simplest form.

**Q.5:** Given that f(x) = 3 – 2x / 3x, find

 a) f(- 2), b) f-1(x).