**ch.5/6 NC**

**1.** The diagram represents the graph of the function

*f* : *x*  (*x* – *p*) (*x* – *q*).



1. Write down the values of *p* and *q*.

(b) The function has a minimum value at the point *C*. Find the equation for the axis of symmetery.

**2.** The quadratic equation *kx2 +* 6*x +* 1.5 *=* 0, *k >* 0 has no real solutions for *x.*Find the value of *k.*

**3.** Find the term containing *x*3 in the expansion of (3 – 5*x*)6.

**4.** Consider the line *L* with equation 2*y* + 3*x* = 3. The line *L*1 is parallel to *L* and passes through the point (6, –4).

(a) Find the gradient of *L*1.

1. Find the equation of *L*1 in the form *y* = + *mx* + *b*.

(c) Find the *x*-coordinate of the point where line *L*1 crosses the *x*-axis.