1. Simplify \(\frac{x-1}{x^2+5x-6} - \frac{x+1}{x^2+8x+17}\)

2. Solve the following equations:
   
   (a) \(\frac{1}{2}(3x-1) - \frac{1}{3}(2x-5) = \frac{8}{6}(x+2)\);
   
   (b) \(\frac{3}{3z-1} = \frac{3x-1}{3}\)

3. (a) Find the product of \(a+b+c\) and \(a+b-c\).
   
   (b) Find the quotient obtained when \(a^2-27b^2\) is divided by \(a-3b\).
   
   (c) Factorise \(x^3-x^2-42x\).

4. Find, correct to one place of decimals, the values of \(x\) which satisfy each of the equations:
   
   (i) \(x^2=15\),
   
   (ii) \(x^2-6x-6=0\).

5. If 10 lb. of butter and 6 dozen eggs cost the same as 6 lb. of butter and 9 dozen eggs, and if the cost of 3 lb. of butter exceeds the cost of 2 dozen eggs by 1s. 3d., find the cost of a pound of butter and of a dozen eggs.

6. Using the same axes and the same scales, draw the graphs of \(x^2\) and \(x+5\) for values of \(x\) from \(-3\) to \(+3\).

Use your graphs to find as accurately as you can (i) the values of \(x\) which satisfy the equation \(x^2=x+5\), (ii) the value of the expression \(x^2-(x+5)\) when \(x=2\frac{3}{3}\) and when \(x=-2\frac{3}{3}\).