Find all solutions of the linear systems using elimination as discussed in this section. Then check your solutions.

```
2.

4x + 3y = 2

7x + 5y = 3

6.

x + 2y + 3z = 8

x + 3y + 3z = 10

x + 2y + 4z = 9

10.

x + 2y + 3z = 1

2x + 4y + 7z = 2

3x + 7y + 11z = 8

12

x - 2y = 3

2x - 4y = 6

18 Find all solutions of the linear system
```

x + 2y + 3z = a x + 3y + 8z = b x + 2y + 2z = cwhere a, b and c are arbitrary constants.

26. Consider the linear system

x + y - z = 2 x + 2y + z = 3 $x + y + (k^{2} - 5)z = k$

where k is an arbitrary constant. For which value(s) of k does this system have a unique solution? For which value(s) of k does the system have infinitely many solutions? For which value(s) of k is the system inconsistent?

29. Find the polynomial of degree 2 [a polynomial of the form $f(t) = a + bt + ct^2$] whose graph goes through this points (1,-1), (2,3) and (3, 13). Sketch the graph of this polynomial.