**Squares & Cubes**

Some numbers can be written as the **sum** of two square numbers, e.g.

34 = 3² + 5²

1. Write each of these numbers as the sum of two squares.
2. **80 b) 61 c) 104**
3. Write each of these numbers as the sum of *three* squares.
4. **21 b) 165 c) 104**

**d) 251 e) 94 f) 35**

1. Write each of these numbers as the *difference* of two squares.
2. **40 b) 77 c) 119**

**Puzzle Time**

1. Rachel is 3 years older than her sister Hannah. The sum of the squares of their ages in years is 317. How old are Rachel and Hannah?
2. I am a two digit square number. I am 17 more than the previous square number. Who am I?
3. I am a two digit multiple of 11. The product of my two digits is both a cube and a square. Who am I?
4. I am a three digit cube number that is also square. Who am I?
5. Find the two smallest whole numbers where the difference of their squares is a cube and the difference of their cubes is a square.