### 25th October

- **c : d : e = 9 : 7 : 2**

Work out \(2c + e : 2d\) in its simplest form.

- **Calculate the surface area of the pyramid**

Shown is the net of a square based pyramid.

The area of the base is \(64\text{cm}^2\)

\[
f(x) = x^2 + 2x + 1
\]

Show that \(f(x + 2) - f(x) = 4x + 8\)

- **Calculate the volume of the pyramid**

One solution of a quadratic equation in the form \(y = ax^2 + bx + c\) is

\[
x = \frac{3 + \sqrt{65}}{4}
\]

Find possible values of \(a\), \(b\) and \(c\).