



Find the volume

The time in minutes, T , taken to serve the guests at a wedding is inversely proportional to the number of waiters, w .

The time is calculated by

$$T = \frac{300}{w}$$

Work out how long it would serve the guests if there were 15 waiters.

Calculate how long it would take to serve the guests if there were 6 waiters.

Work out the difference in the time taken to serve the guests if there were 6 waiters or if there were 20 waiters.

Sally bought a piano for £2200. In each year the value of the piano increases by 11% of its value at the start of that year.

Calculate after how many complete years the value of the piano will be at least £3200.

Solve the simultaneous equations

$$8x + 7y = 39$$

$$8x + 2y = 34$$