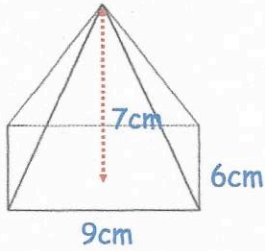


21st April



Corbettmaths



$$A = 9 \times 6 = 54$$

Find the volume

$$\begin{aligned} V &= \frac{1}{3} Ah \\ &= \frac{1}{3} \times 54 \times 7 \\ &= 126 \text{ cm}^3 \end{aligned}$$

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

$$T = \frac{300}{15} = 20 \text{ mins}$$

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.

$$\frac{300}{6} = 50 \text{ mins}$$

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

$$\begin{aligned} 6 \text{ waiters} &: 50 \text{ mins} \\ 20 \text{ waiters} &: 15 \text{ mins} \end{aligned}$$

$$50 - 15 = 35 \text{ mins}$$

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.

$$\begin{aligned} 2200 \times 1.11 &= 2442 \\ 2200 \times 1.11^3 &= 3008.70 \\ 2200 \times 1.11^4 &= 3339.7 \end{aligned}$$

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

4 years

Solve these simultaneous equations

$$8x + 7y = 39$$

$$8x + 2y = 34 \quad \text{sub}$$

$$\begin{array}{r} 8x + 7y = 39 \\ 8x + 2y = 34 \\ \hline 5y = 5 \end{array} \quad y = 1$$

$$8x + 2 = 34$$

$$8x = 32$$

$$x = 4$$

$$y = 1 \quad \& \quad x = 4$$