

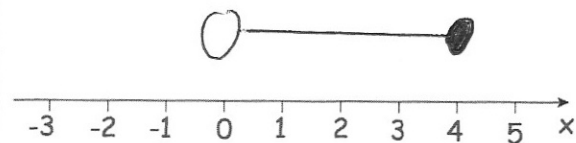


Write 85000 in standard form

$$8.5 \times 10^4$$

Write 0.0007 in standard form

$$7 \times 10^{-4}$$

Represent the inequality $0 < x \leq 4$ on this number line.

Solve the simultaneous equations

$$\begin{array}{r} 2x + 3y = 9 \quad \times 2 \quad 4x + 6y = 18 \\ 3x + 2y = 1 \quad \times 3 \quad 9x + 6y = 3 \\ \hline -5x = 15 \end{array}$$

$$\begin{array}{r} x = -3 \quad \text{Check} \\ -6 + 15 = 9 \\ -9 + 2y = 1 \quad x = -3 \\ 2y = 10 \quad y = 5 \\ y = 5 \end{array}$$

The number of days, D , to complete some research is given by

$$D = \frac{1600}{R}$$

where R is the number of researches.

Aisha says that if there are 50 researchers, it will take less than 30 days to complete the research.

Is she correct? $\frac{1600}{50} = 32$

No, 32 days.

A glass cube of side length 5cm has a mass of 306.25g.

Calculate the density of the glass.

$$\begin{aligned} v &= 5^3 \\ &= 125 \text{ cm}^3 \end{aligned}$$

$$\begin{array}{r} d^m \\ \hline 306.25 \\ 125 \end{array}$$

$$2.45 \text{ g/cm}^3$$