



# **LINEAR EQUATIONS**

**SINGLE-STEP QUESTIONS** 

### **NO CALCULATOR**

Ref: G241. **1E1** 

A1 Solve $x^2 = 36$	A2 Solve $\sqrt{x} = 3$	A3 Solve $x^3 = 27$	A4 Solve $\frac{1}{x} = \frac{1}{3}$
<b>B1</b> Solve $\sqrt{x} = 9$	B2 Solve $x^2 = 4$	<b>B3</b> Solve $\frac{4}{x} = \frac{4}{5}$	<b>B4</b> Solve $x^3 = 343$
C1 Solve $\sqrt[3]{x} = 8$	C2 Solve $\frac{1}{x} = \frac{3}{12}$	C3 Solve $7x = 0$	C4 Solve $\frac{3}{x} = \frac{1}{5}$
<b>D1</b> When 13 is added to x, the answer is 21. Work out the value of x.	D2 When x is multiplied by 8, the answer is 56. Work out the value of x.	D3 When x is divided by 6, the answer is 18.  Work out the value of x.	D4 When x is squared, the answer is 144. Work out the value of x.





## LINEAR EQUATIONS

#### SINGLE-STEP QUESTIONS

#### **NO CALCULATOR**

<b>A</b> 1	So	770
$\boldsymbol{A}$		IVC

$$x^2 = 36$$

$$X = \sqrt{36}$$

$$\sqrt{x} = 3$$

$$x = 3^{2}$$

$$x^{3} = 27$$

$$x = \sqrt[3]{27}$$

$$= 3$$

same 
$$\frac{1}{x} = \frac{1}{3}$$

$$\frac{1}{x} = \frac{1}{3}$$

(Equivalent fractions)

$$\sqrt{x} = 9$$

$$X = 9^{2}$$

= 81

$$x^2 = 4$$

**B3** Solve

same 
$$4 = 4$$

$$\frac{4}{x} = \frac{4}{5}$$

(Equivalent fractions)

**B4** Solve

$$x^3 = 343$$
$$x = \sqrt[3]{343}$$

C1 Solve

$$\sqrt[3]{x} = 8$$

$$X = 8^{3}$$

C2 Solve



$$X = 4$$

(Equivalent fractions)

C3 Solve

$$7x = 0$$

$$X = 0$$

C4 Solve

$$\frac{3}{x} = \frac{1}{5}$$

$$x = 15$$

(Equivalent fractions)

**D1** When 13 is added to x, the answer is 21.

Work out the value of x.

$$x + 13 = 21$$

$$x = 8$$

**D2** When x is multiplied by 8, the answer is 56.

Work out the value of x.

$$8x = 56$$

$$x = 7$$

**D3** When x is divided by 6, the answer is 18.

Work out the value of x.

$$\frac{x}{6} = 18$$

$$x = 108$$

**D4** When *x* is squared, the answer is 144.

Work out the value of x.

$$x^2 = 144$$

$$x = 12$$