

56 - Solving Linear Equations



Content

To solve an equation you find the value of the unknown by isolating it on one side by performing inverse operations. Remember that solutions can be integers, decimals, fractions and negative numbers.

1) Solve $f - 5 = -1$

Add 5 to both sides $+5 \quad +5$

$$f = 4$$

2) Solve $4y + 1 = 9$

Subtract 1 $-1 \quad -1$

$$4y = 8$$

Divide by 4 $\div 4 \quad \div 4$

$$y = 2$$

3) Solve $3(4m + 1) = 15$

Expand bracket

$$12m + 3 = 15$$

Subtract 3 $-3 \quad -3$

$$12m = 12$$

Divide by 12 $\div 12 \quad \div 12$

$$m = 1$$

4) Solve $5e - 1 = 3e + 6$

Subtract 3e $-3e \quad -3e$

$$2e - 1 = 6$$

Add 1 $+1 \quad +1$

$$2e = 7$$

Divide by 2 $\div 2 \quad \div 2$

$$e = 3.5$$

Linked Prior Topics

Basic algebra, number operations, negative numbers, expanding brackets

Vocabulary

Equations, inverse, brackets, solve

Linked Future Topics

Solving quadratic equations, rearranging formulae