### Algebra Foundation Answers GCSE Mathematics



#### Starters

Collecting Like Terms

2a + 13b

(1) (1)

Sequences

21, 28

(2)

**Expanding Brackets** 

12a - 18

(1) (1)

Solving Linear Equations

6x = 21

(1)

x = 3.5

(1)

Rules of Indices

12a<sup>6</sup>b<sup>4</sup>

(2)

Substitution

-21 + 8

(1)

-13

(1)

#### Main Course

Perimeter of the Garden

8x - 12 = 4(2x - 3)

2(2x - 3) + 2(4)

(1)

(2)

4x + 2

(1)

Cooking Temperatures

14G = C - 120

(1)

(1)

 $G = (C - 120) \div 14$ 

G = 5

(1)

"How much?"

9t + 6c = £29.40

4t + 6c = £20.40

T = £1.80

(1)

(1)

(1)

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(1)

 $3 \times 1.80 + 2c = 9.80$ 

C = £2.20 (1)

The Olympics 1896 + 4(49) + 12 (1)

2104 (1)

Understanding Temperatures  $F = 9 \times C + 32$  (1)

 $\frac{9 \times 15}{5} + 32$  (1)

59°F (1)

Angles in a Parallelogram 6x - 25 = 3x + 14 (1)

 $x = 13^{\circ} \tag{1}$ 

6(13) - 25 = 53 (1)

 $y = 127^{\circ}$  (1)

Dessert

Inequalities 6n > 24 (1)

 $n > 4 \tag{1}$ 

The Difference of Two Squares  $(12 + 8)(12 - 8) = 20 \times 4 = 80$  (1)

 $12^2 = 144$ 

 $8^2 = 64$ 

144 - 84 = 80 (1)

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Recognising Graphs

y = 2x + 1 is linear and therefore should be a

straight line

Correct is B  $y = x^2 + 1$ 

(1)

(1)

**Expanding Brackets** 

 $x^2 + 4x + 4x + 16$ 

(1)

 $x^2 + 8x + 16$ 

(1)

Nth term rule

-2, 1, 4

(2)

Understanding expressions

2n always even as any number whether odd or even is even when multiplied by 2.

(1)

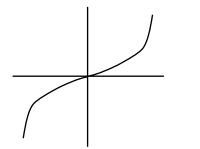
**Drinks** 

Factorise

(x + 9) (x - 9)

(2)

**Sketching Graphs** 



Writing an Equation

$$^{x}/_{6} + 9 = 12$$

(1)

$$^{\times}/_{6} = 3$$

$$x = 18$$

# Algebra Foundation Answers GCSE Mathematics

**Expanding Double Brackets** 



(1)

(1)

Function Machines  $+ 3 \times 4$  (2)

Parallel Lines Parallel so  $y=2x \dots$  (1)

Intercepts y axis at 5 so y=2x+5

 $x^2 - 3x - 18$