

Nelson Maths 9 for the CSF II

Homework and Assessment Sheets

Quadratic trinomials

AL 9-7

Name: _____ Class: _____

Due date: _____ Parent's signature: _____

Level 5										Level 6									
/10										/20									

Part A: Level 5

Write a like term for each of the following.

1 $5a^2b$ _____

2 $2qr$ _____

Simplify each of these expressions.

3 $-2 \times b \times -3 \times a =$ _____

4 $18b^2 \div 12b =$ _____

5 $\frac{48abc}{-16ac} =$ _____

6 $5xy - 3y - 7x + x - 2xy =$ _____

7 $4ab + 3b - ba + 3a - ab =$ _____

Expand each of the following expressions.

8 $7(a + 3) =$ _____

9 $-2(2a - 3) =$ _____

10 $-2a(2a - 5b) =$ _____

Part B: Level 6

Simplify each of the following algebraic expressions.

1 $2x(x + 3) =$ _____

2 $5(x + 3) + 2(3x - 4) =$ _____
 = _____

3 $-2(3 - 5x) - 5(3y - 1) =$ _____
 = _____

4 $(x + 3)(x + 4) =$ _____
 = _____
 = _____

5 $(x - 5)(x - 7) =$ _____
 = _____
 = _____

$$6 \quad (x-3)(x+9) = \underline{\hspace{2cm}}$$

$$= \underline{\hspace{2cm}}$$

$$= \underline{\hspace{2cm}}$$

$$7 \quad (3x-4)(3x+4) = \underline{\hspace{2cm}}$$

$$8 \quad (x-5)^2 = \underline{\hspace{2cm}}$$

Factorise each of the following.

$$9 \quad 7p^2 - 14p = \underline{\hspace{2cm}}$$

$$10 \quad x^2 - 81 = \underline{\hspace{2cm}}$$

$$11 \quad 4m^2 - 121 = \underline{\hspace{2cm}}$$

$$12 \quad 8x^2y - 12xy + 16xy^2 = \underline{\hspace{2cm}}$$

$$13 \quad 3(x+2) + x(x+2) = \underline{\hspace{2cm}}$$

$$14 \quad x^2 + 9x + 18 = \underline{\hspace{2cm}}$$

$$15 \quad x^2 - 7x - 60 = \underline{\hspace{2cm}}$$

$$16 \quad x^2 + 5x - 84 = \underline{\hspace{2cm}}$$

Factorise each of the following.

$$17 \quad \frac{12x-4}{4} = \underline{\hspace{2cm}}$$

$$18 \quad \frac{3x^2+6x}{3x} = \underline{\hspace{2cm}}$$

$$19 \quad \frac{x+3x+2}{x+2} = \underline{\hspace{2cm}}$$

$$20 \quad \frac{x^2+11x+24}{x+8} = \underline{\hspace{2cm}}$$

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There is a number missing in the following quadratic trinomial that has been replaced by the letter k .

$$x^2 + kx - 48$$

If k is an integer, what values could it have?

Vocabulary

Write the mathematical meanings of:

Quadratic trinomial _____

Perfect square _____
