

HIGHLAND HIGH SCHOOL LESSON PLAN

NAME: A. Daka

DATE: 15 - 06 - 12

CLASS: 10 C

SUBJECT : Mathematics
PUPILS:

TIME: 14:25

NO.OF

TOPIC: Factorisation - Difference of Two Squares

DEPT: Mathematics

REFERENCE/AIDS: Mathematics 10 and Chalkboard

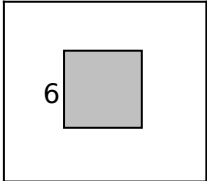
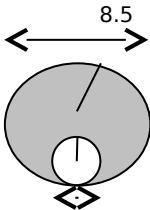
LESSON OBJECTIVES: At the end of the lesson, PSBAT:

(a) Factorise expressions of the form $x^2 - y^2$

(b) Use the identity $a^2 - b^2 = (a + b)(a - b)$ to evaluate expressions like $55^2 - 45^2$

(c) Get at least 8 out of 10

TIME PHASE	CONTENT	TEACHER'S ACTIVITY	PUPIL'S ACTIVITY	METHODOLOGY
5 - 10 minutes	Introduction	- Teacher showing on the chalkboard a diagram on areas of squares and rectangles and asking pupils to find areas of shaded parts. - Teacher telling pupils that the expression $a^2 - b^2$ is known as Difference of Two Squares	Answering orally and note taking.	Question and answer.
30 minutes	Lesson Development DIFFERENCE OF 2 SQUARES	- Teacher explaining to pupils how to factorise expressions like (i) $a^2 - b^2$ (ii) $2a^2 - 8b^2$ (iii) $\frac{4}{a^2} - \frac{4}{b^2}$ - Teacher giving examples Factorise each of the following 1. $x^2 - 4$ 2. $m^2 - n^2$ 3. $2x^2 - 18$ 4. $36 - 25y^2$	- Pupils to participate in solving examples on the chalkboard. Solutions: (i) $a^2 - b^2 = (a + b)(a - b)$ (ii) $2a^2 - 8b^2 = 2(a^2 - 4b^2) = 2[(a + b)(a - b)]$ (iii) $\frac{4}{a^2} - \frac{4}{b^2} = (a^2 + b^2)(a^2 - b^2) = (a^2 + b^2)(a - b)(a + b)$	Teacher exposition

		5. $x^2 - 0.25$ - Teacher telling pupils that Factorising Difference of 2 Squares can be used to evaluate arithmetical expressions, e.g. Find the value of 6. $46^2 - 44^2$ 7. $120^2 - 80^2$ 8. $(7.5)^2 - (2.5)^2$ 9. $3.6^2 - 6.4^2$ 10. The diagram below shows two squares. Calculate the area of the unshaded part 	- Writing notes.	
40 minutes	Assessment	- Teacher giving Class Work on the chalkboard Ex8a/b P75 Factorise each of the following. $x^2 - y^2$ $p^2 - 16$ $a^2 - 1$ $36 - 25y^2$ $3m^2 - 27$ $x^2 - 1/9$ $49 - x^2$ Evaluate 1.5 $97^2 - 3^2$ $64^2 - 36^2$ 10. Calculate the area of the unshaded part between the 2 circles 	Doing the exercise individually in their notebooks.	Chalkboard

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EVALUATION:

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