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(Department of Education).

INTERMEDIATE CERTIFICATE EXAMINATION, 1952.

ELEMENTARY MATHEMATICS (Algebra).

FOR GIRLS ONLY.

TUESDAY, 17th *JUNE*.—Morning, 10 to 12.

Six questions may be answered.

All questions carry equal marks.

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1. Find the value of $\dfrac{(2x^2+3xy+y^2)(2x^2+xy-y^2)}{x^2+2xy+y^2}$

when $x=3\frac{1}{2}$ and $y=-2$.

2. Put the expression $\dfrac{x-1}{3}+\dfrac{4x+1}{5}-\dfrac{5x-8}{15}$

into its simplest form. Find the value of x for which the expression will be equal to 6 and verify your answer.

3. Factorise :

    (i) $ac-bc+ad-bd$,

    (ii) $2x^2-5x+2$,

    (iii) $(a+b)(a-2b)^2-(a-2b)^3$.

4. A woman bought x oranges at y pence each and $2x$ oranges at z pence each. She sold the whole lot at k pence each. Find (i) the total cost of the oranges, (ii) the total selling price, (iii) the profit made, (iv) the percentage profit.

Or,

4. A man purchased 12 dozen pencils for £1 8s. 9d. For some of the pencils he paid $2\frac{1}{2}$d. each and for the remainder he paid $2\frac{1}{4}$d. each. Find how many he bought at $2\frac{1}{2}$d. each.

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5. Find, correct to two places of decimals, the values of x which satisfy $x^2-5x+3=0$.

6. Draw the graph of x^2-3x for values of x from -2 to $+5$, and find from it the value of x^2-3x when $x=2\frac{1}{2}$.