

- (5.) $\left(\frac{1}{a^2} + \frac{1}{ax} + \frac{1}{x^2}\right) \left(\frac{1}{a^2} - \frac{1}{ax} + \frac{1}{x^2}\right);$
 $\left(\frac{3}{x^2} - \frac{3}{xy} + \frac{1}{y^2}\right) \left(\frac{3}{x^2} + \frac{3}{xy} + \frac{1}{y^2}\right).$
- (6.) $4(a^2 + 5ab - 2b^2)(b^2 + 5ab - 2a^2).$
- (7.) $\frac{1}{(b-c)^2} \left\{ 4a^2 - 5a(b-c) + 2(b-c)^2 \right\} \frac{1}{(b-c)^2} \left\{ 4a^2 + 5a(b-c) + 2(b-c)^2 \right\}.$
- (8.) $\frac{1}{(x^2 - xy + y^2)^2} \left\{ (x^3 + y^3) + (x+y)^2 \right\} \frac{1}{(x^2 - xy + y^2)^2} \left\{ (x^3 + y^3) + (x+y)^2 \right\}.$
- (9.) $(a^2 - 2ab + 5b^2)(5a^2 - 2ab + b^2); (2x^2 - xy - 3y^2)(2x^2 + xy - 3y^2).$
- (10.) $\left(\frac{1}{a^2} - \frac{2}{ab} + \frac{3}{b^2}\right) \left(\frac{1}{a^2} + \frac{2}{ab} + \frac{3}{b^2}\right);$
 $\left(\frac{4}{a^2} - \frac{2}{ab} + \frac{1}{b^2}\right) \left(\frac{4}{a^2} + \frac{2}{ab} + \frac{1}{b^2}\right).$

EXERCISE XVI.

TRINOMIALS.

A.

- (1.) $(x+2)(x+6); (x+4)(x+5); (x+37)(x+10).$
- (2.) $(x+40)(x+49); (x-13)(x-14); (x-25)(x+6).$
- (3.) $(x+20)(x-4); (x-26)(x-62); (x-40)(x+3).$
- (4.) $(5x+4)(3x+1); (3x+2y)(2x-3y);$
 $(4c-7a)(4c+3a).$
- (5.) $\left(x + \frac{4}{5}\right)\left(x - \frac{5}{4}\right); \left(x + \frac{2}{5}\right)\left(x - \frac{5}{2}\right); (x-1)\left(x - \frac{17}{8}\right).$
- (6.) $(x+12)(x+21); (x-99)(x+7); (x-48)(x+11).$
- (7.) $(3x-7y)(7x-2y); \left(x^2 + \frac{1}{3}\right)\left(x^2 - \frac{3}{4}\right); \left(x - \frac{3}{2}\right)\left(x - \frac{1}{4}\right).$
- (8.) $13x(13y).$ (9.) $\frac{1}{(a-b)^2} \left\{ 4(a+2)^2 - x^2 \right\} \frac{1}{(a-b)^2} \left\{ (x+2)^2 - 9x^2 \right\}.$
- (10.) $\frac{1}{(a-b)^m - 11} \left\{ (a-b)^m - 33 \right\}.$

B.

- Page 14. (1.) $(8x-9)(9x-8); (4x-5)(2x-7).$
- (2.) $(3x-4y)(8x+y); (5x-1)(2x-3).$
- (3.) $(15x+99)(x+1); (4x-3)(3x+7).$
- (4.) $(2a+3b)(3a-5b); (4z-5x)(8z+4x).$
- (5.) Multiply by 4 times co-efficient of first term thus—
 $4 \times 413^2 x^2 - 4 \times 413 \times 606xy - 4 \times 413 \times 299y^2$, then
 add $(606y)^2 - (606y)^2$, $\therefore$ we have difference of
 two squares $= (826x - 606y)^2 - (928y)^2$. Factor
 in ordinary way and divide result by 4×413 , =
 $(59x + 23y)(7x - 13y)$. Second part $(17x + 8y)$
 $(12x - 25y).$