

- (6.) $16a^2 + 25b^2 + 36c^2 + 40ab + 48ac + 60bc$;
 $\frac{x^2}{4} + \frac{y^2}{9} + \frac{z^2}{16} + \frac{xy}{3} + \frac{xz}{4} + \frac{yz}{6}$; $1 + x + \frac{11x^2}{12} + \frac{x^3}{3} + \frac{x^4}{9}$.
- (7.) $a^2 + b^2 + c^2 + 2ab - 2ac - 2bc$;
 $a^2 + b^2 + c^2 - 2ab + 2ac - 2bc$;
 $a^2 + b^2 + c^2 - 2ab - 2ac + 2bc$.
- (8.) $x^2 + \frac{1}{4}y^2 + 1 - xy + 2x - y$;
 $x^4 - 10x^3 + 39x^2 - 70x + 49$.
 $x^4 - 2ax^3 + (a^2 - 2b)x^2 + 2abx + b^2$.
- (9.) $\frac{x^4}{9} + \frac{2x^3}{3} + \frac{4x^2}{3} + x + \frac{1}{4}$;
 $9x^4 - 2x^3 - 17\frac{8}{9}x^2 + 2x + 9$; $\frac{4m^2}{9n^2} + \frac{9n^2}{4m^2} - 2$.
- (10.) $a^2x^2 + b^2y^2 + c^4 + 2ac^2x + 2abxy + 2bc^2y$;
 $\frac{x^2}{y^2} + \frac{y^2}{z^2} + \frac{z^2}{x^2} + \frac{2x}{z} + \frac{2z}{y} + \frac{2y}{x}$.

EXERCISE X.

- Page 9. (1.) $x^3 + 3x^2y + 3xy^2 + y^3$; $x^3 - 3x^2y + 3xy^2 - y^3$; $x^3 + y^3 + z^3 + 3x^2y + 3x^2z + 3xy^2 + 3xz^2 + 3yz^2 + 3y^2z + 6xyz$; $x^3 + y^3 - z^3 + 3x^2y - 3x^2z + 3xy^2 + 3xz^2 + 3yz^2 - 3y^2z - 6xyz$.
- (2.) $m^3 + \frac{1}{m^3} + 3m + \frac{3}{m}$; $m^3 - \frac{1}{m^3} - 3m + \frac{3}{m}$;
 $\frac{m^3}{n^3} + \frac{n^3}{m^3} + \frac{3m}{n} + \frac{3n}{m}$.
- (3.) $a^3 - b^3 + c^3 - 3a^2b + 3ab^2 + 3a^2c + 3ac^2 + 3b^2c - 3bc^2 - 6abc$; $a^3 - b^3 - c^3 - 3a^2b + 3ab^2 - 3a^2c + 3ac^2 - 3b^2c - 3bc^2 + 6abc$; $1 + 3x + 6x^2 + 7x^3 + 6x^4 + 3x^5 + x^6$.
- (4.) $4(a+b)^2$. (5.) a^2 . (6.) (7.)
- (8.) $2(a-c)(b-d)$. (9.) $2(1+3a^4)$. (10.) $27x^3$.

EXERCISE XI.

MISCELLANEOUS EXERCISE.

- (1.) (2.) 0. (3.)
- (4.) $x^2 + y^2 + z^2 + 2xy + 2xz + 2yz$. (5.) $2(1+3x^4)$.
- (6.) $(a+b)^3$.
- (7.) Factor expression $x^3 - 8y^3 - 27z^3 - 18xyz$ and one factor is $x - 2y - 3z$, which is equal to zero, $\therefore x^3 - 8y^3 - 27z^3 = 18xyz$.
- (8.) = 0. (9.) $8x^3$. (10.) 0. (11.) a^3 .
- (12.) $8(x^2 + y^2)^3$.