(79.) $x^2y=z(x-z)^2+2yz(x-z)+zy^2$, $\therefore z(x-z)^2=x^2y-2yz(x-z)-zy^2$ or $(x-z)^2=yz$.

(80.) Multiply by x and add unity to each side; $\therefore (1-x)^2$, etc.

(81.) $b^2x^2-a^2y^2=ab^2x-a^2by$, etc.

(82.) $(a+b)x+ab=$, etc.

(83.) $x=-(y+z)$, $\therefore -(y+z)(a^2-bc)+(b^2-ca)y+(c^2-ab)z=0$, $\therefore (b^2-ca-a^2+bc)y=(a^2-bc-c^2+ab)z$, etc.

(84.) Subtract 2nd from 1st, divide by $y-z$, etc.

(85.) $1+a=1+\frac{x-y}{x+y}$ and $1-a=1-\frac{x-y}{x+y}$ $\therefore \frac{1+a}{1-a}=\frac{x}{y}$, etc.

(86.) Write $\left(\frac{1-x^2}{1-x}\right)\left(\frac{1-x^4}{1-x^2}\right)$, etc.

(87.) $x^2-xy+y^2=0$, $\therefore (x-y)^2=-xy$, $\therefore$ expression $=x^2y^2(x-y)-xy(x-y)xy=0$, $\therefore x^2-xy+y^2$ is a factor. (88.) .

(89.) Add the equalities, etc., but left hand will be $(x-y)(y-z)(z-x)$ which $=3abc$, etc.

(90.) $-z=\frac{1-x}{1-2x}$, which divided out gives $1+x+2x^2+$, etc.

(91.) $a^2-5a-14$. (92.) $\frac{1}{x^{m+1}y}$. (93.) .

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(95.) Let m be quantity subtracted, and instead of a, b, c, write $a-m, b-m, c-m$; $\therefore$ expression $=(a-m)^2-(b-m)(c-m)+(b-m)^2-(a-m)(c-m)+(c-m)^2-(a-m)(b-m)$. Simplify, etc.

(96.) . (97.) $x=1$.

(98.) Expression $=a(b^2+bc+c^2)+$, etc., $=(a+b+c)(bc+ca+ab)$, $\therefore =0$. (99.) $p=25$, $q=-24$.

(100.) $-\frac{4}{3}$. (101.) $x=5$.

(102.) $A=2$, $B=3$, $C=1$, $D=1$.

(103.) Divide each by $x+a$, and remainders $=0$. Subtract, $\therefore a(l-p)=m-q$, etc. (104.) $1-m^3-m^4$.

(105.) If reduced, $x+1$ or $x+2$ must be a factor, $\therefore x=-1$ or -2, and hence $p=3$ or $\frac{1}{2}$.

(106.) $(xy+xz+yz-x^2-y^2-z^2)$ is the other factor.