1. $\phi\left(\frac{x}{y}, \frac{y}{z}\right) = 0$

2. $\phi\left(xy, \log x - \frac{z}{xy}\right) = 0$

3. $\phi\left(ze^{\frac{cx}{a}}, ay - bx\right) = 0$

4. $\phi\left(\frac{z-3}{1-x}, \frac{2-y}{1-x}\right) = 0$

5. $\phi\left(\frac{\sin y}{\sin x}, \frac{\sin z}{\sin x}\right) = 0$

6. $\phi\left(y^2 + z^2, x^3 + y^3\right) = 0$

7. $\phi\left(xy, x^2 + y^2 + z^2\right) = 0$

8. $\phi\left(\frac{x}{y}, xy - z^2\right) = 0$

9. $\phi\left(x^2 + y^2, y^2 + z^2\right) = 0$

10. $\phi\left(x^2 + y^2, xy - z\right) = 0$

11. $\phi\left(x + y + z, x^2 + y^2 + z^2\right) = 0$

12. $\phi\left(xyz, x + y + z\right) = 0$

13. $\phi\left(x^2 + y^2 - 2z, xyz\right) = 0$

14. $\phi\left(xyz, x^2 + y^2 + z^2\right) = 0$

15. $\phi\left(x^2 + y^2 + z^2, xy + z\right) = 0$

16. $\phi\left(lx + my + nz, x^2 + y^2 + z^2\right) = 0$

17. $\phi\left(y^2 + z^2 - x^2, z^2 - 2xy\right) = 0$

18. $\phi\{xy, (x + y)(x + y + z)\} = 0$