Solve the following equations

1. $xp + yq = z$
2. $xp - yq = xy$
3. $ap + bq + cz = 0$
4. $(1 - x)\,p + (2 - y)\,q = 3 - z$
5. $p \tan x + q \tan y = \tan z$
6. $y^2zp - x^2zq = x^2y$
7. $zxp - zyq = y^2 - x^2$
8. $xzp + yzq = xy$
9. $yzp - xzq = xy$
10. $yp - xq + x^2 - y^2 = 0$
11. $(y - z)\,p + (z - x)\,q = x - y$
12. $x\,(y - z)\,p + y\,(z - x)\,q = z\,(x - y)$
13. $x\,(y^2 + z)\,p - y\,(x^2 + z)\,q = z\,(x^2 - y^2)$
14. $x\,(y^2 - z^2)\,p + y\,(z^2 - x^2)\,q = z\,(x^2 - y^2)$
15. $(y + zx)\,p - (x + yz)\,q = x^2 - y^2$