

تمرین های سره اول معادله ریاضی

معادلات زیر را حل کنید.

$$1) (y+1)dn - \tan y dy = 0$$

$$2) (1+n^3)dy - n^2y dn = 0$$

$$3) (4n + ny^2)dn + (y + n^2y)dy = 0$$

$$4) y' = e^{3x-2y} + n^2 e^{-2y}$$

$$5) y' = \frac{y \ln y}{x}$$

$$6) y' = y$$

$$7) y' = x$$

$$8) y \ln y dn + (1+n^2)dy = 0$$

$$9) e^n dy + y e^n dn + n^2 dy + 2xy dn = 0, \quad y(0) = 1$$

$$10) y' - \frac{y}{x} + \csc \frac{y}{x} = 0$$

$$11) (n \tan \frac{y}{n} + y) dn - n dy = 0$$

$$12) (\frac{y}{n} \cos \frac{y}{n}) dn - (\frac{n}{y} \sinh \frac{y}{n} + \cos \frac{y}{n}) dy = 0$$

$$13) y' = \frac{-3n^2y + y^3}{n^3 + 3ny^2}$$

$$14) (n^2 + y^2)dn - (n^2 + ny)dy = 0$$

$$15) (n+y)dn - (n-y)dy = 0$$