

این ادامه متن است. این ادامه متن است. این ادامه متن است. این ادامه متن است.
این ادامه متن است. این ادامه متن است. این ادامه متن است.

جدول ۱: بعضی از معادلات غیرخطی که جواب‌های دقیقی به فرم (؟؟) و (؟؟) دارند

مراجع	جواب	معادله
]؟[	$T = \varphi(x) + \psi(t)$	
	$T = (a/b) \ln u,$	$\frac{\partial T}{\partial t} = a \frac{\partial^2 T}{\partial x^2} + b \left(\frac{\partial T}{\partial x} \right)^2$
	$u = \varphi(x) + \psi(t)$	
]؟، ؟[	$T = \varphi(x)\psi(t)$	$\frac{\partial T}{\partial t} = a \frac{\partial}{\partial x} \left(T^m \frac{\partial T}{\partial x} \right)$
]؟، ؟[	$T = \varphi(x) + \psi(t)$	$\frac{\partial T}{\partial t} = a \frac{\partial}{\partial x} (e^{\lambda t} \frac{\partial T}{\partial x})$
]؟، ؟[	$T = \varphi(x)\psi(t)$	$\frac{\partial T}{\partial t} = a \frac{\partial^2 T}{\partial x^2} + aT \ln T$
]؟[	$T = \varphi(x)\psi(t)$	$\frac{\partial T}{\partial t} = ax^{-n} \frac{\partial}{\partial x} (x^n \frac{\partial T}{\partial x}) + bT \ln T$
]؟[	$T = -2 \ln u, u = \varphi(x) + \psi(y)$	$\frac{\partial^2 T}{\partial x^2} + \frac{\partial^2 T}{\partial y^2} = ae^T$
]؟[	$T = 2 \ln \frac{1+u}{1-u}, u = \varphi(x)\psi(y)$	$\frac{\partial^2 T}{\partial x^2} + \frac{\partial^2 T}{\partial y^2} = a \sinh T$
]؟[	$T = e^u, u = \varphi(x) + \psi(y)$	$\frac{\partial^2 T}{\partial x^2} + \frac{\partial^2 T}{\partial y^2} = aT \ln T$
]؟[	$T = 4a \tan u, u = \varphi(x)\psi(y)$	$\frac{\partial^2 T}{\partial x^2} + \frac{\partial^2 T}{\partial y^2} = a \sin T$
]؟[	$T = F(u), u = \varphi(x) + \psi(y)$	$\frac{\partial}{\partial x} (ax^n \frac{\partial T}{\partial x}) + \frac{\partial}{\partial y} (by^m \frac{\partial T}{\partial y}) = cT^k$
]؟[	$T = F(u), u = \varphi(x) + \psi(y)$	$\frac{\partial}{\partial x} (ae^{\lambda x} \frac{\partial T}{\partial x}) + \frac{\partial}{\partial y} (be^{\beta y} \frac{\partial T}{\partial y}) = ce^{\gamma T}$
]؟[	$T = F(u), u = \varphi(x) + \psi(y)$	$\frac{\partial}{\partial x} (ax^n \frac{\partial T}{\partial x}) + \frac{\partial}{\partial y} (be^{\beta y} \frac{\partial T}{\partial y}) = ce^{\gamma T}$
]؟[	$T = \varphi(x)\psi(y)$	$\frac{\partial}{\partial x} (aT^n \frac{\partial T}{\partial x}) + \frac{\partial}{\partial y} (bT^m \frac{\partial T}{\partial y}) = 0$
]؟[	$T = \varphi(x) + \psi(y)$	$\frac{\partial}{\partial x} (ae^{\lambda T} \frac{\partial T}{\partial x}) + \frac{\partial}{\partial y} (be^{\beta T} \frac{\partial T}{\partial y}) = 0$
]؟[	$T = -2 \ln u, u = \varphi(x) + \psi(t)$	$\frac{\partial^2 T}{\partial t^2} = \frac{\partial^2 T}{\partial x^2} + ae^T$
]؟[	$T = 2 \ln \frac{1+u}{1-u}, u = \varphi(x)\psi(t)$	$\frac{\partial^2 T}{\partial t^2} = \frac{\partial^2 T}{\partial x^2} + a \sinh T$
]؟[	$T = e^u, u = \varphi(x) + \psi(t)$	$\frac{\partial^2 T}{\partial t^2} = \frac{\partial^2 T}{\partial x^2} + aT \ln T$
]؟[	$T = 4a \tan u, u = \varphi(x) + \psi(t)$	$\frac{\partial^2 T}{\partial t^2} = \frac{\partial^2 T}{\partial x^2} + a \sin T$