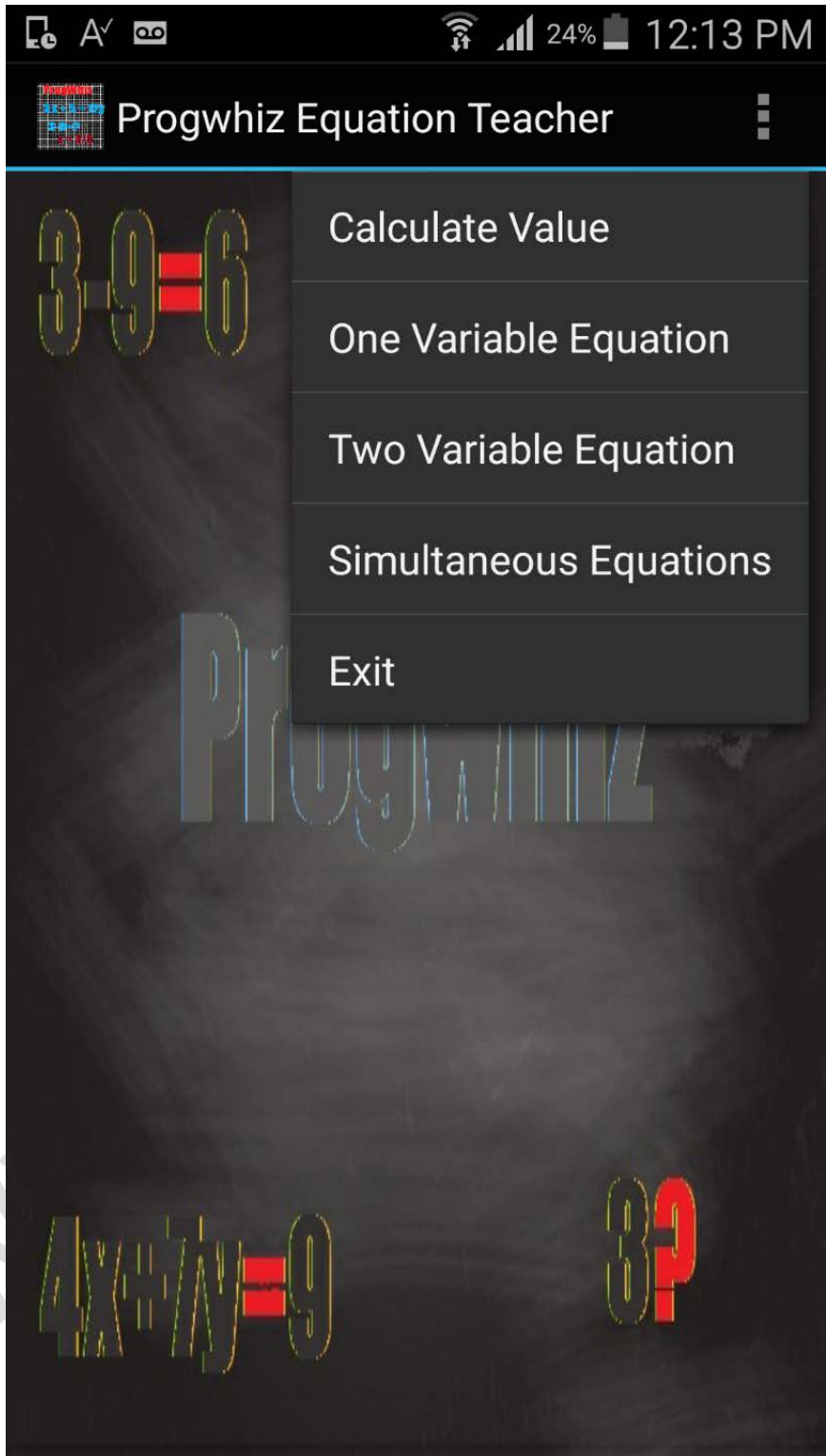


Equation Teacher

By

Progwhiz

www.progwhiz.com



Contents

Contents.....	3
Introduction	4
Calculate Value	5
One Variable Equation	6
Simultaneous Equations	8
Contact.....	12

www.progwhiz.com

Introduction

Welcome to Equation Teacher. First of it's kind to present an interactive equation solving and illustration App for Smart phones (Android, Kindle, iPhone, iPad,.. etc)

Scope

- Arithmetic rules
 - Addition
 - Subtraction
- Number Sign rules when crossing the Equal sign
 - Addition
 - Subtraction
 - Multiplication
 - Division
- Bracket expansion
- Fraction Simplification
- Solving for one(1) variable (X)
- Solving for two(2) variables (X & Y)

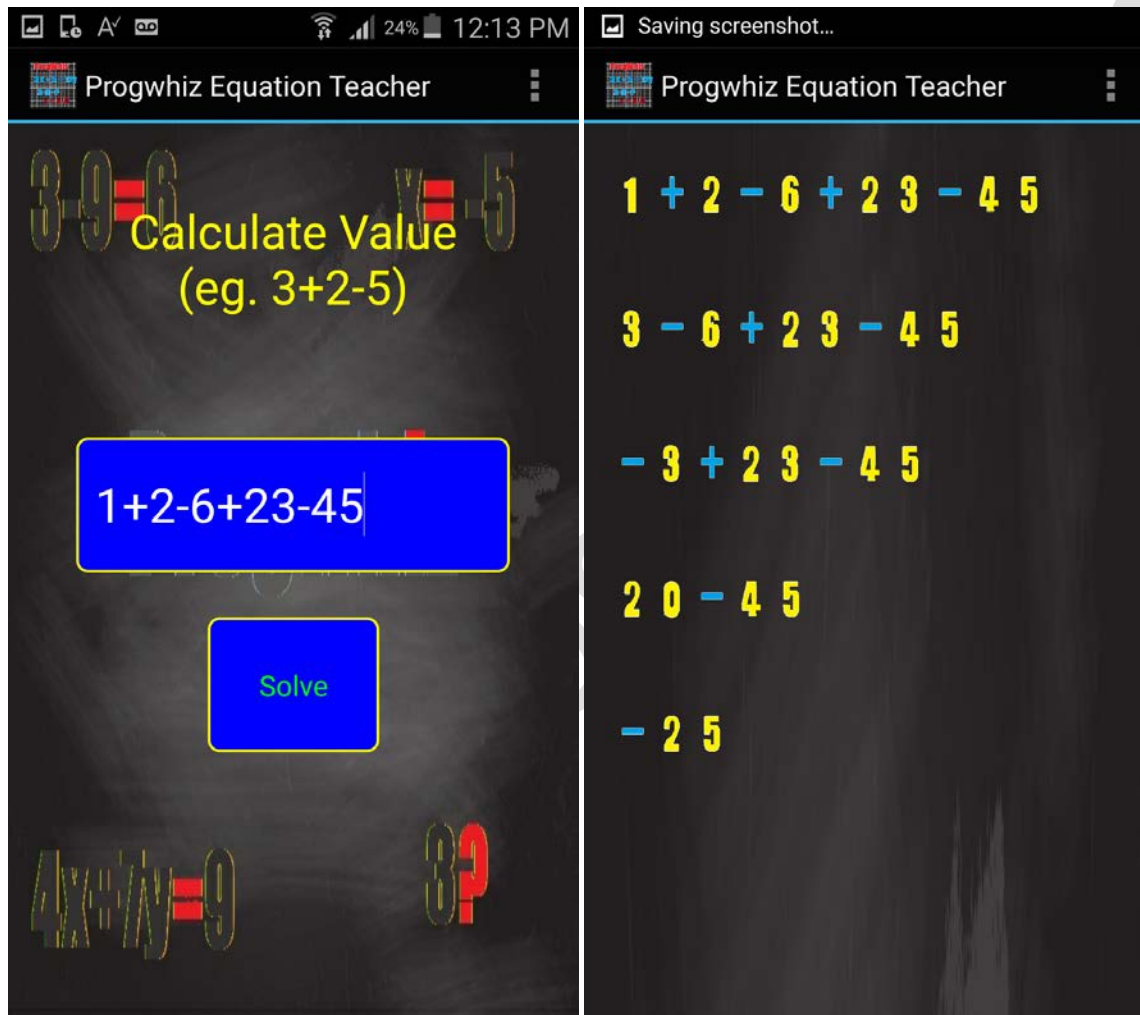
The types of equations supported

Equation Types

- ❖ Calculate Value
- ❖ One Variable Equation
- ❖ Simultaneous Equations

Calculate Value

Teaches the principles of number algebra and how to simplify and calculate basic addition and subtraction of signed numbers



One Variable Equation

Teaches how to solve for a single unknown and incorporates all arithmetic algebra discussed previously as well as division and multiplication and how to manage sign changes when crossing the equal sign and lastly how to simplify fractions.

The image shows two screenshots from the Proghwiz Equation Teacher app. The left screenshot displays the title "One Variable Equation (eg. 3x+6=2)" and a text input field containing the equation $1-6x+23-45=-3$. A blue "Solve" button is positioned below the input field. The right screenshot shows the step-by-step solution process:

Solve for variable (x) in Equation (1)

$$1 - 6x + 23 - 45 = -3$$
$$-6x = -3 - 1 - 23 + 45$$
$$-6x = 18$$
$$x = \frac{18}{-6}$$
$$x = -3$$



$$-6x = -3 - 1 - 2 + 3 + 4 + 5$$

$$-6x = 18$$

$$\begin{array}{r} x = 18 \\ \hline -6 \end{array}$$

$$\begin{array}{r} x = -3 \\ \hline 1 \end{array}$$

$$x = -3$$

Progwhiz.com

Simultaneous Equations

Teaches how to solve two(2) unknowns using a methodology known as simultaneous theory. The student will learn how to represent one variable in terms of another and how to equate two equations and lastly how to cross multiply across the equal sign.

The image consists of two side-by-side screenshots from the Progwhiz Equation Teacher app. The left screenshot shows the title 'Simultaneous Equations' with two example equations: $3x+2y=5$ (labeled 1) and $2y+6x=1$ (labeled 2). Below these are two blue boxes containing the equations $3x+3y=1$ and $4y+2x=5$. A blue 'Solve' button is at the bottom. The right screenshot shows the step 'Solve For variable (x) in terms of (y) in Equation (1)'. It displays the equation $3x+3y=1$, then $3x=1-3y$, and finally $x=\frac{1-3y}{3}$ (labeled 3). Below this, it says 'Solve For variable (x) in terms of (y) in Equation (2)' and shows the equation $4y+2x=5$ (labeled 2).

Solve For variable (x) in terms of (y) in Equation (2)

$$4y + 2x = 5 \quad \dots 2$$

$$2x = 5 - 4y$$

$$x = \frac{5 - 4y}{2} \quad \dots 4$$

Equate Equations (3) & (4) to solve for (y)

$$5 - 4y = 1 - 3y$$

Equate Equations (3) & (4) to solve for (y)

$$\frac{5 - 4y}{2} = \frac{1 - 3y}{3} \quad \dots 5$$

$$3(5 - 4y) = 2(1 - 3y)$$

$$15 - 12y = 2 - 6y$$

$$-12y = 2 - 6y - 15$$

$$6y - 12y = 2 - 15$$

WWW.P

Proghwiz Equation Teacher

$$-12Y = 2 - 6Y - 15$$

$$6Y - 12Y = 2 - 15$$

$$6Y - 12Y = -13$$

$$-6Y = -13$$

$$Y = \frac{-13}{-6}$$

$$Y = 2.1667 \dots 6$$

Proghwiz Equation Teacher

$$Y = 2.1667 \dots 6$$

Substitute value for variable (y) in Equation (3) to solve for variable (x)

$$X = \frac{-6 - 39}{-18} \dots 7$$

WWW.P

Saving screenshot...



Progwhiz Equation Teacher



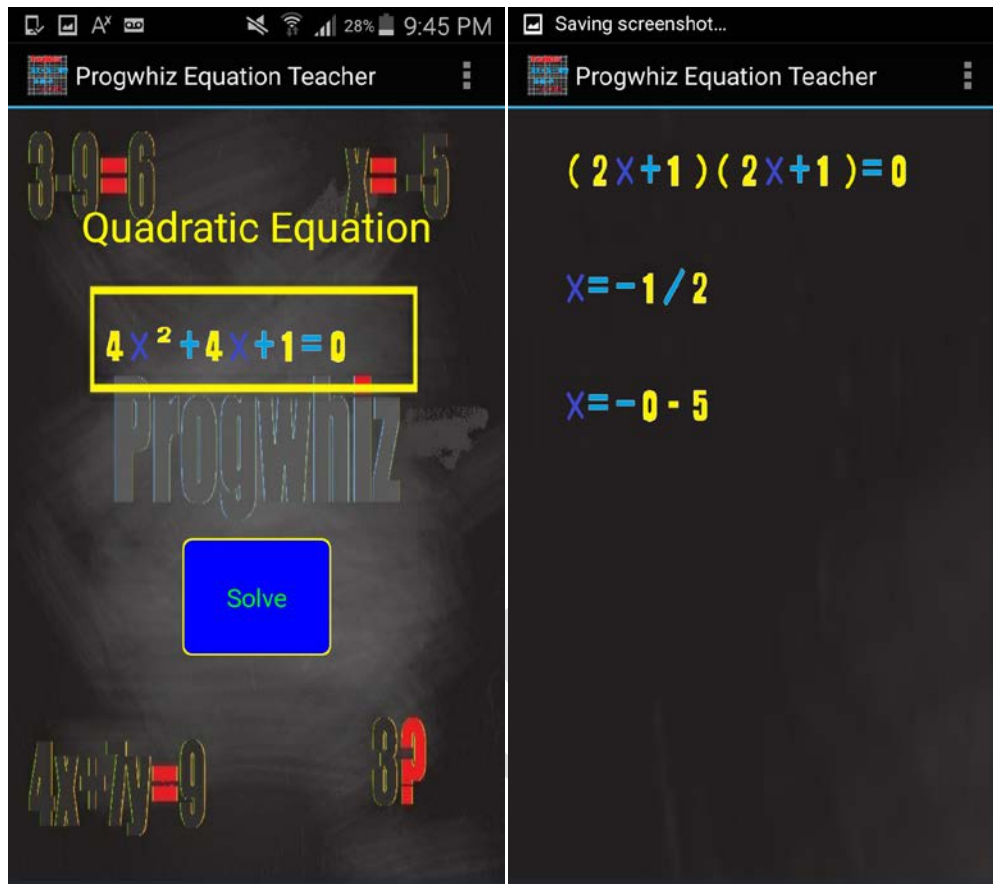
$$\begin{array}{r} X = 33 \\ \hline - 18 \\ \hline \end{array}$$

$$\begin{array}{r} X = -11 \\ \hline 6 \\ \hline \end{array}$$

$$X = -1 - 8333$$

Quadratic Equations

Teaches how to Quadratic Equations and shows the result as both a factorised form as well as the result in fractions and decimals.



Contact

Web: www.progwhiz.com/equations.html

Email: info@progwhiz.com

Tel: 1 868 740 3374

www.progwhiz.com