

# Assignment 5-2

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Qs: Rewrite the Pascal Quadratic (from unit 2) program in PHP.

## Source Code:

```
<?php

    $total = 0;

    $flag = true;

    do
    {
        echo("\n");
        echo("\nEnter 0 0 0 to quit");
        echo("\nEnter a b c values: \n");
        $a = (float)readline();
        $b = (float)readline();
        $c = (float)readline();
        echo("The a b c values are: " . $a . " " . $b . " " . $c . "\n");

        if($a == 0 && $b == 0 && $c == 0)
        {
            echo($total . " equations were solved.");
            $flag = false;
        }
        else
        {
            $total += 1;
            $determinant = (($b * $b) - (4) * ($a * $c));
```

```

if($determinant>0)
{
$х = (-$b+sqrt($determinant))/(2.0*$a);
$у = (-$b-sqrt($determinant))/(2.0*$a);
echo("Roots are real... \n");
echo("Root 1:");
echo sprintf("%.16E",$х);
echo("\n");
echo("Root 2:");
echo sprintf("%.16E",$у, "\n");
}
elseif($determinant==0)
{
$х1 = (-$b)/(2.0*$a);
echo("One real root...\n");
echo("Root 1:");
echo sprintf("%.16E",$х1, "\n");
}
else
{
$х1 = (-$b)/(2.0*$a);
$х2 = sqrt(-$determinant)/(2.0*$a);
$х3 = $х1 + $х2;
$х4 = $х1 - $х2;
echo("Roots are imaginary...\n");
echo ("Root 1: i*");
echo sprintf("%.16E",$х3);

```

```
echo("\n");  
  
echo("Root 2: i*");  
  
echo sprintf("%.16E", $z4, "\n");
```

```
}  
  
}  
  
}while($flag);  
  
?>
```

## Output:

```
cmd C:\Windows\system32\cmd.exe  
  
Enter 0 0 0 to quit  
Enter a b c values:  
1  
0  
-9  
The a b c values are: 1 0 -9  
Roots are real...  
Root 1:3.0000000000000000E+0  
Root 2:-3.0000000000000000E+0  
  
Enter 0 0 0 to quit  
Enter a b c values:  
1  
6  
9  
The a b c values are: 1 6 9  
One real root...  
Root 1:-3.0000000000000000E+0  
  
Enter 0 0 0 to quit  
Enter a b c values:  
1  
0  
4  
The a b c values are: 1 0 4  
Roots are imaginary...  
Root 1: i*2.0000000000000000E+0  
Root 2: i*-2.0000000000000000E+0  
  
Enter 0 0 0 to quit  
Enter a b c values:  
0  
0  
0  
The a b c values are: 0 0 0  
3 equations were solved.  
Press any key to continue . . .
```