

Programming Fundamental

Exploring



Make your first PHP file #1

```
<?php  
echo "Halo Dunia";  
?>
```

Simpan di **htdocs** sebagai **.php**

Aktifkan Apache Server

Buka web browser

Akses **localhost/[folder]/[file].php**

Make your first PHP file #2

```
<!DOCTYPE html>
<html>
<head>
<title>Purwadhika</title>
</head>
<body>
    <?php
    echo "Halo Dunia";
    ?>
</body>
</html>
```

Make your first PHP file #3

```
<!DOCTYPE html>
<html>
<head>
<title>Purwadhika</title>
</head>
<body>
    <?php
    echo "<h1>Halo Dunia</h1>";
    ?>
</body>
</html>
```

Echo vs Print

```
<?php
```

```
echo "Welcome to Purwadhika";  
echo "<br>";  
echo "Halo " . "2017";  
echo "<br>";  
echo 500 . " kilometer";  
echo "<br>";  
echo "Satu ", "Dua ", "Tiga ";
```

```
?>
```

Echo vs Print

```
<?php
```

```
print "Welcome to Purwadhika";  
print "<br>";  
print "Halo" . "2017";  
print "<br>";  
print 500 . "kilometer";  
print "<br>";
```

```
?>
```

Comment

`<?php`

`//komentar 1 line`

`/*
komentar multiline
komentar multiline
komentar multiline
*/`

`?>`

Variabel

```
<?php
```

```
$w = "Halo";
```

```
$x = 1234;
```

```
$y = 12.34;
```

```
echo $w . "<br>";
```

```
echo $x . "<br>";
```

```
echo $y . "<br>";
```

```
?>
```


Data Type

```
$w = null; $x = 5985;  
$y = 'Halo'; $z = 2.12;
```

```
echo gettype($w) . "<br>";  
echo gettype($x) . "<br>";  
echo gettype($y) . "<br>";  
echo gettype($z) . "<br><br>";
```

```
var_dump($w); echo "<br>";  
var_dump($x); echo "<br>";  
var_dump($y); echo "<br>";  
var_dump($z); echo "<br>";
```

Arithmetic Operators

```
<?php
```

```
$x = 4; $y = 3; $z = 2;
```

```
echo $x + $y . "<br>";
```

```
echo $x - $y . "<br>";
```

```
echo $x * $y . "<br>";
```

```
echo $x / $y . "<br>";
```

```
echo $x % $y . "<br>";
```

```
echo sqrt ($x) . "<br>";
```

```
echo pow ($y,$z) . "<br>";
```

```
?>
```

```
<?php
```

```
$x = 0.69444444;
```

Round

```
echo ceil($x) . "<br>";    //ke atas  
echo floor($x) . "<br>";   //ke bawah
```

```
echo round($x,2,PHP_ROUND_HALF_UP);  
echo "<br>";    //setengah ke atas
```

```
echo round($x,2,PHP_ROUND_HALF_DOWN);  
echo "<br>";    //setengah ke bawah
```

```
echo round($x,2,PHP_ROUND_HALF_EVEN);  
echo "<br>";    //setengah ke genap
```

```
echo round($x,2,PHP_ROUND_HALF_ODD);  
echo "<br>";    //setengah ke ganjil  
?>
```

Solve It!

if $x = 4, y = 3 \text{ \& } z = 2$

$$w = \frac{x + y \times z^z}{x \times y} = ?$$

Solved

$$w = \left(\frac{x + y \times z}{x \times y} \right)^z$$

```
<?php
```

```
$x = 4; $y = 3; $z = 2;
```

```
$w = pow(($x+$y*$z)/($x*$y),$z);
```

```
echo $w;
```

```
?>
```

Solve It!

$$3 \overline{)8} = ?$$

Solved!

```
<?php
```

```
$x = 8; $y = 3;  
$z = pow($x, 1/$y);  
echo $z;
```

```
?>
```

$$\sqrt[3]{8} = ?$$

Solve It!

**Jumlah usia Andi & Budi = 49
th. Usia Andi $\frac{2}{5}$ usia Budi.**

**Berapa usia Andi & Budi
saat ini?**

Solved!

```
<?php
$total = 49;
$rasio = 0.4;
$budi = $total/($rasio+1);
$andi = $total - $budi;
echo "Andi " . $andi . "th";
echo "Budi " . $budi . "th";
?>
```

Solve It!

Jarak mobil A & B = 120 km.
A berjalan 60km/h dari timur.
B berjalan 40km/h dari barat.
A & B mulai berjalan 9 WIB.

Kapan A & B bertabrakan?

Solved!

```
$a = 60; $b = 40; $jarak = 120; $start = 9;
```

```
$waktu = ($jarak / ($a + $b)) * 60;
```

```
echo "Tabrakan " . $waktu . " menit lagi! ";
```

```
$jam = $start + floor($waktu / 60);
```

```
$menit = floor($waktu % 60);
```

```
echo "Tepatnya pukul " . $jam . ":" . $menit . "!";
```

Solve It!

485 hari.

Nyatakan dalam tahun, bulan, minggu dan hari.

*1 bulan = 30 hari, 1 tahun = 360 hari.

Solved!

```
$soalhari = 485;
```

```
$tahun = $soalhari/360;  
echo floor($tahun) . " tahun<br>"
```

```
$bulan = ($soalhari%360)/30;  
echo floor($bulan) . " bulan<br>"
```

```
$minggu = (($soalhari%360)%30)/7;  
echo floor($minggu) . " minggu<br>"
```

```
$hari = (($soalhari%360)%30)%7;  
echo $hari . " hari<br>"
```

<?php

Assignment Operators

\$x = 5;

**\$x++; echo \$x . "
";**

**\$x++; echo \$x . "
";**

**\$x++; echo \$x . "
";**

\$y = 10;

**\$y--; echo \$y . "
";**

**\$y--; echo \$y . "
";**

**\$y--; echo \$y . "
";**

?>

<?php Assignment Operators

\$x = 5;

**\$x++; echo \$x . "
";**

**\$x--; echo \$x . "
";**

**\$x += 4; echo \$x . "
";**

**\$x -= 4; echo \$x . "
";**

**\$x *= 4; echo \$x . "
";**

**\$x /= 4; echo \$x . "
";**

**\$x %= 4; echo \$x . "
";**

?>

Assignment Operators

```
<?php
```

```
$x = 5; $x++; echo $x . "<br>";
```

```
$x = 5; $x--; echo $x . "<br>";
```

```
$x = 5; $x += 4; echo $x . "<br>";
```

```
$x = 5; $x -= 4; echo $x . "<br>";
```

```
$x = 5; $x *= 4; echo $x . "<br>";
```

```
$x = 5; $x /= 4; echo $x . "<br>";
```

```
$x = 5; $x %= 4; echo $x . "<br>";
```

```
?>
```


Input Form & PHP

```
<form action="xxx.php" method="post">
    <p> Ketik sesuatu :
    <p><input type="text" name="kata">
    <p><input type="submit" value="Selesai">
</form>
```

```
<?php
if($_SERVER["REQUEST_METHOD"] == "POST"){
    $kalimat= $_POST["kata"];

    echo $kalimat;
}

?>
```

Input Form & Arithmetic Operators

```
<form action="xxx.php" method="post">
    <p> Masukkan angka :
    <p><input type="number" name="angka">
    <p><input type="submit" value="Kuadratkan!">
</form>
```

```
<?php
if($_SERVER["REQUEST_METHOD"] == "POST"){
    $bilangan = $_POST["angka"];

    echo pow($bilangan,2);
}
?>
```

Try it out!



Tulis sesuatu di sini :

Selesai

Anda menulis *Purwadhika*

Try it out!



Masukkan angka :

Kuadratkan!

$$2^2 = 4$$

Try it out!



Angka 1 :

Angka 2 :

Pangkatkan!

$$2^3 = 8$$

if, elseif & else

if (*condition*) {*program;*}

elseif (*condition*) {*program;*}

else {*program;*}

if, elseif & else

```
$x = 4;
```

```
if ($x == 4) {echo "Ini 4";}
```

```
elseif ($x == 3) {echo "Ini 3";}
```

```
else {echo "Bukan 3 & 4";}
```

Logical Operators “AND”

```
$x = 40;
```

```
$y = 50;
```

```
if ($x == 40 and $y == 50)  
{echo “Keduanya benar <br>;”}
```

```
if ($x == 40 && $y == 50)  
{echo " Keduanya benar <br>;”}
```


Logical Operators “OR”

```
$x = 40;
```

```
$y = 50;
```

```
if ($x == 40 or $y == 80)  
{echo “Salah satu benar <br>”;}  
}
```

```
if ($x == 40 || $y == 80)  
{echo “Salah satu benar <br>”;}  
}
```

```
if ($x == 40 xor $y == 80)  
{echo “true if x / y true, but not both”;}  
}
```

Comparison Operators

```
$x = 4;  
$y = '4';  
$z = 4;
```

//equal, sama nilainya

```
var_dump($x == $y); echo "<br>";  
var_dump($x == $z); echo "<br>";
```

//identik, sama nilai & type data

```
var_dump($x === $y); echo "<br>";  
var_dump($x === $z); echo "<br>";
```

//pakai != atau pakai <>

```
var_dump($x != $y); echo "<br>";  
var_dump($x != $z); echo "<br>";
```

Comparison Operators

```
$x = 4;  
$y = '4';  
$z = 4;
```

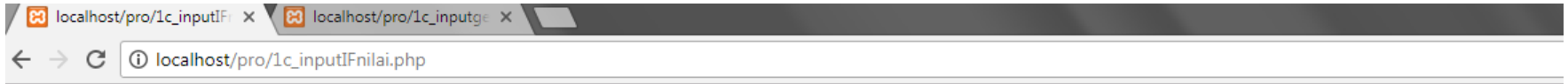
```
var_dump($x > $y); echo "<br>";  
var_dump($x > $z); echo "<br>";
```

```
var_dump($x >= $y); echo "<br>";  
var_dump($x >= $z); echo "<br>";
```

```
var_dump($x < $y); echo "<br>";  
var_dump($x < $z); echo "<br>";
```

```
var_dump($x <= $y); echo "<br>";  
var_dump($x <= $z); echo "<br>";
```

Try it out!



Berapa nilaimu?

Lihat Laporan

Nilai Anda 100, PERFECT!

Try it out!

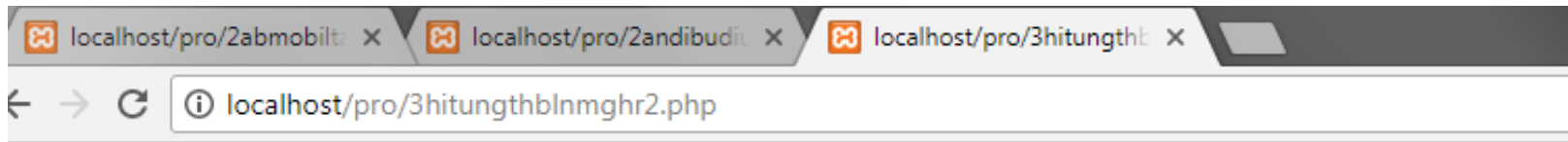


Masukkan angka :

Ganjil/Genap?

Angka 8 bilangan genap!

Try it out!



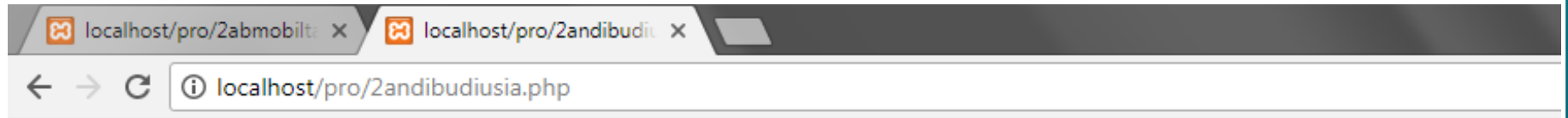
Masukkan jumlah hari :

Hitung!

32 hari artinya:

0 tahun, 1 bulan, 0 minggu, 2 hari

Try it out!



Andi & Budi

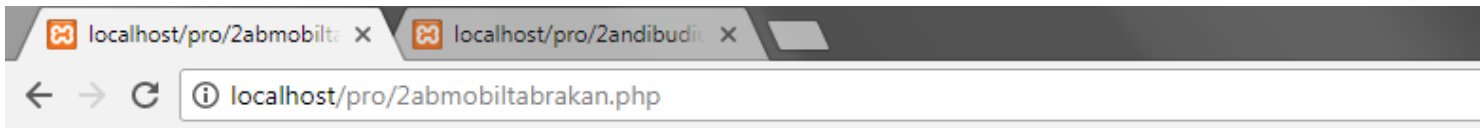
Andi + Budi :

Andi / Budi :

Hitung Usia Andi & Budi

Usia Andi 14 tahun & usia Budi 35 tahun.

Try it out!



Mobil A & B Tabrakan!?

Kecepatan mobil A (km/h) :

Kecepatan mobil B (km/h) :

Jarak mobil A & B (km) :

Berangkat pada pukul (WIB) :

Kapan tabrakan!?

Tabrakan 72 menit lagi!

Tepatnya pukul 10:12!

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