Question 1 : Read 3 numbers (a, b, c) and check if they may or may not be sides of a triangle.
Answer :

```php
<?php
function checkValidity($a, $b, $c)
{
   // check condition
   if ($a + $b <= $c ||
      $a + $c <= $b ||
      $b + $c <= $a)
      return false;
   else
      return true;
}

   // Driver Code
   $a = 7;
   $b = 10;
   $c = 5;

   if (checkValidity($a, $b, $c))
      echo "Numbers are valid sides of triangle.";
   else
      echo "Numbers are invalid sides of triangle.";
?>
```

Question 2 : As you have the wage of 10 people…count how many people are equal, above and below the average.
Answer :
```php
<?php
      $myarray = array(10, 33, 88, 44, 3, 86, 65, 64, 22, 32);

$total = 0;
for ($x = 0; $x < 10; $x++) {
  $total = $total + $myarray[$x];
}

$average = $total / 10;

$noofequals = 0;
$noofabove = 0;
$noofbelow = 0;

for ($x = 0; $x < 10; $x++) {
  if ($myarray[$x] == $average) {
```

```php
      $noofequals = $noofequals + 1;
  }
  else if ($myarray[$x] < $average) {
      $noofbelow = $noofbelow + 1;
  }
  else {
      $noofabove = $noofabove + 1;
  }
}

echo "No. Of Equal Numbers : $noofequals <br>";
echo "No. Of Above Numbers : $noofabove <br>";
echo "No. Of Below Numbers : $noofbelow";
?>
```

Question 3

Using ages of 10 people, **count how many** people are in each range:
- *Child <= 12*
- *<12 Teen <= 18*
- *18 <Young <= 25*
- *25 <Adult <= 59*
- *Senior <60* .

ANSWER :

```php
<?php
$agearray = array(10, 33, 88, 44, 3, 86, 65, 64, 22, 32);

$noofchild = 0;
$noofteen = 0;
$noofyoung = 0;
$noofadult = 0;
$noofsenior = 0;

for ($x = 0; $x < 10; $x++) {
  if ($myarray[$x] <= 12) {
      $noofchild = $noofchild + 1;
  }
  else if ($myarray[$x] > 12 && $myarray[$x] <= 18) {
      $noofteen = $noofteen + 1;
  }
  else if ($myarray[$x] > 18 && $myarray[$x] <= 25) {
```

```php
      $noofyoung = $noofyoung + 1;
  }
  else if ($myarray[$x] > 25 && $myarray[$x] <= 59) {
      $noofadult = $noofadult + 1;
  }
  else {
      $noofsenior = $noofsenior + 1;
  }
}

echo "No. Of Child : $noofchild <br>";
echo "No. Of Teens : $noofteen <br>";
echo "No. Of Young : $noofyoung <br>";
echo "No. Of Adult : $noofadult <br>";
echo "No. Of Senior : $noofsenior";
?>
```

Question 4

As you have height and gender of 15 people
(M: men; W: women), inform:
1 - the smallest and highest height;
2 - average height of men;
3 - height of taller women;
4 - how many were men;

ANSWER :

```php
<?php
$heightAndGender = array
  (
    array("M",22),
    array("W",15),
    array("M",5),
    array("W",65),
    array("W",44),
    array("W",88),
    array("W",22),
    array("W",4),
    array("W",22),
    array("M",43),
    array("M",76),
    array("M",65),
```

```php
    array("M",33),
    array("M",29),
    array("W",17)
  );

$smallest = $heightAndGender[0][1];
$highest = 0;
for ($i = 0; $i < 15; $i++) {
  if ($heightAndGender[$i][1] <= $smallest) {
    $smallest = $heightAndGender[$i][1];
  }
  if ($heightAndGender[$i][1] >= $highest) {
    $highest = $heightAndGender[$i][1];
  }
}

echo "Smallest number is $smallest <br>";
echo "Highest number is $highest <br>";

$avgHeightOfMan = 0;
$totalHeightOfMan = 0;
for ($i = 0; $i < 15; $i++) {
  if ($heightAndGender[$i][0] == "M") {
    $totalHeightOfMan = $totalHeightOfMan + $heightAndGender[$i][1];
  }
}
$avgHeightOfMan = $totalHeightOfMan / 15;

echo "Avegrage Highest of Man $avgHeightOfMan <br>";

$heightOfTallerWomen = 0;

for ($i = 0; $i < 15; $i++) {
  if ($heightAndGender[$i][0] == "W") {
    if ($heightAndGender[$i][1] >= $heightOfTallerWomen) {
      $heightOfTallerWomen = $heightAndGender[$i][1];
    }
  }
}

echo "Height of taller women $heightOfTallerWomen <br>";

$totalMan = 0;
for ($i = 0; $i < 15; $i++) {
  if ($heightAndGender[$i][0] == "M") {
    $totalMan = $totalMan + 1;
```

```
 }
}
echo "Total men are $totalMan <br>";
?>
```

Question 5

Develop a simple calculator (+, -, x, /), where you have 3 parameters (Number 1 : Double, Number 2: Double , Mathematical Operator: String).

ANSWER :

```php
<?php
$number1 = 44;
$number2 = 65;
$operator = "+";

$answer = 0;
if ($operator == "+") {
 $answer = $number1 + $number2;
}
else if ($operator == "-") {
 $answer = $number1 - $number2;
}
else if ($operator == "*") {
 $answer = $number1 * $number2;
}
else {
  $answer = $number1 / $number2;
}

echo "ANSWER IS $answer";
?>
```