# Enoncé

Rna Transcription

Write a program that, given a DNA strand, returns its RNA complement (per RNA transcription).

Both DNA and RNA strands are a sequence of nucleotides.

L’ADN est transcrit en ARN qui sert de “code” pour fabriquer les protéines

The four nucleotides found in DNA are adenine (\*\*A\*\*), cytosine (\*\*C\*\*),

guanine (\*\*G\*\*) and thymine (\*\*T\*\*).

The four nucleotides found in RNA are adenine (\*\*A\*\*), cytosine (\*\*C\*\*),

guanine (\*\*G\*\*) and uracil (\*\*U\*\*).

Given a DNA strand, its transcribed RNA strand is formed by replacing

each nucleotide with its complement:

\* `G` -> `C`

\* `C` -> `G`

\* `T` -> `A`

\* `A` -> `U`

**Fonction:**

<?php

function toRna($string){

$tab = str\_split($string);

for ($i=0; $i <count($tab) ; $i++) {

if ($tab[$i] == "C")

$tab[$i] = "G";

else if ($tab[$i] == "G")

$tab[$i] = "C";

else if ($tab[$i] == "T")

$tab[$i] = "A";

else if ($tab[$i] == "A")

$tab[$i] = "U";

}

return implode($tab);

}

**Test:**

<?php

class RNA\_convert\_Test extends PHPUnit\_Framework\_TestCase

{

public function testPhpUnit()

{

$this->assertEquals(true, true);

}

public function testTranscribesGuanineToCytosine()

{

$this->assertSame('G', toRna('C'));

}

public function testTranscribesCytosineToGuanine()

{

$this->assertSame('C', toRna('G'));

}

public function testTranscribesThymineToAdenine()

{

$this->assertSame('A', toRna('T'));

}

public function testTranscribesAdenineToUracil()

{

$this->assertSame('U', toRna('A'));

}

public function testTranscribesAllOccurencesOne\_1()

{

$this->assertSame('UGCACCAGAAUU', toRna('ACGTGGTCTTAA'));

}

public function testTranscribesAllOccurencesOne\_2()

{

$this->assertSame('UUUUUUUUUU', toRna('AAAAAAAAAA'));

}

}