

Task-1

PHI

Sophie shook her head. "I was more interested in the mathematics of it - the Divine Proportion,

PHI, Fibonacci sequences, that sort of thing."

Langdon was surprised. "Your grandfather taught you about the number PHI?"

"Of course. The Divine Proportion." Her expression turned sheepish. "In fact, he used to joke that I

was half divine... you know, because of the letters in my name."

Langdon considered it a moment and then groaned.

soPHIe.

Langdon refocused on PHI.

He felt himself suddenly reeling back to Harvard, standing in front of his "Symbolism in Art" class,

writing his favorite number on the chalkboard.

1.618

Langdon turned to face his sea of eager students. "Who can tell me what this number is?"

A long-legged math major in back raised his hand. "That's the number PHI." He pronounced it fee.

"Nice job, Stettner," Langdon said. "Everyone, meet PHI."

"This number PHI," Langdon continued, "one-point-six-one-eight, is a very important number in

art. Who can tell me why?"

"Because it's so pretty?" Stettner asked.

Everyone laughed.

"Actually," Langdon said, "Stettner's right again. PHI is generally considered the most beautiful

number in the universe."

The laughter abruptly stopped.

As Langdon loaded his slide projector, he explained that the number PHI was derived from the

Fibonacci sequence—a progression famous not only because the sum of adjacent terms equalled the next term, but because the quotients of adjacent terms possessed the astonishing property of

approaching the number 1.618—PHI!

Despite PHI's seemingly mystical mathematical origins, Langdon explained, the truly mind-boggling aspect of PHI was its role as a fundamental building block in nature. Plants, animals, and

even human beings all possessed dimensional properties that adhered with eerie exactitude to the

ratio of PHI to 1.

"PHI's ubiquity in nature," Langdon said, killing the lights, "clearly exceeds coincidence, and so

the ancients assumed the number PHI must have been preordained by the Creator of the universe.

Early scientists heralded one-point-six-one-eight as the Divine Proportion."

"Hold on," said a young woman in the front row. "I'm a bio major and I've never seen this Divine

Proportion in nature."

"No?" Langdon grinned. "Ever study the relationship between females and males in a honeybee

community?"

"Sure. The female bees always outnumber the male bees."

"Correct. And did you know that if you divide the number of female bees by the number of male

bees in any beehive in the world, you always get the same number?"

"You do?"

"Yup. PHI."

The girl gaped. "NO WAY!"

"Way!" Langdon fired back.

Langdon advanced to the next slide. "Sunflower seeds grow

in opposing spirals. Can you guess the ratio of each rotation's diameter to the next?"

"PHI?" everyone said.

"This is amazing!" someone cried out.

"Yeah," someone else said, "but what does it have to do with art?"

"Aha!" Langdon said. "Glad you asked."

"Nobody understood better than Da Vinci the divine structure of the human body. Da Vinci actually, exhumed corpses to measure the exact proportions of human bone structure. He was the

first to show that the human body is literally made of building blocks whose proportional ratios

always equal PHI."

Everyone in class gave him a dubious look.

"One-point-six-one-eight. Measure the distance from your shoulder to your fingertips, and then divide it by the distance from your elbow to your fingertips. PHI again. Another? Hip to floor divided by knee to floor. PHI again. Finger

joints. Toes. Spinal divisions. PHI. PHI. PHI. My friends, each of you is a walking tribute to the Divine Proportion."

Task-2

This text explains and provides the evidence for the existence of mysterious ratio known as The Divine Proportion or PHI, 1.618, in nature. It not only connects mathematically with Fibonacci Sequence but also plays a prominent as a fundamental building block in universe.

This excerpt is taken from "The Da Vince Code", written by Dan Brown. During the summer break of 2019, my school friend suggested me to read this book and I gave it a shot.

This text provides knowledge about the connection of different patterns, designs found in plants, animals, nature, universe with mathematics. The reason I find this interesting is because no scientist, mathematician or any other intellectual person has been able to find justification or provide reasoning of the same. It also gives us a glimpse of how complex, yet simple our universe is. It is a mystery yet to be solved.