V1	V2	V3	V4
53	33	16	75

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Texto para as questões de 51 a 53

Black hole stars challenge our idea of the universe. A potentially new cosmic object raises the question of which came first: black holes, or stars and galaxies?

The mysterious celestial objects became known as the "little red dots". The scarlet blobs, scattered over images of deep space collected by the orbiting James Webb Space Telescope, defied explanation. The dots looked like bright mature galaxies but, puzzlingly, seemed anchored in a universe too young to host them. It was like flicking through an album of cosmic baby photos and finding portraits of a teenager. Now astronomers have come up with a potential explanation: the dots belong to a new class of cosmic object called black hole stars. These are not stars in the usual sense of being powered by nuclear fusion; instead, they comprise a supermassive black hole wrapped in dense hydrogen gas. As the central black hole devours surrounding matter and emits radiation, the illuminated gas cloud shines like the outer layer of a star.

The analysis, published in the journal *Astronomy and Astrophysics*, may well challenge ideas about how the first celestial objects formed, and in what order. Did stars and galaxies give rise to black holes, or was it the other way around? It also illustrates how studying extremes can push boundaries by forcing scientists to come up with new ideas. It was an outlier among the little red dots that energised the idea of black hole stars — a concept that, though still speculative, has been well-received by cosmologists.

Financial Times. 01 October 2025 (Adaptado).

Considerado o contexto, o termo “puzzlingly” (2º parágrafo) tem por função

(A) sugerir conclusão definitiva sobre a cronologia da formação cósmica.
(B) indicar falha instrumental na obtenção das imagens astronômicas.
(C) caracterizar os objetos como ocorrências rotineiras no estudo do cosmos profundo.
(D) apresentar descrição técnica objetiva das propriedades das galáxias.
(E) marcar a perplexidade diante da incompatibilidade entre observação e teoria.

RESOLUÇÃO

O advérbio *puzzlingly* deriva de *puzzling*, que significa “intrigante”, “enigmático”: algo difícil de explicar. No trecho do texto em que o termo aparece, há um contraste entre os pontos observados, que aparentavam ser galáxias maduras (“The dots looked like bright mature galaxies”), mas pareciam estar situados em um universo jovem demais para abrigá-los (“seemed anchored in a universe too young to host them”). Portanto, o advérbio *puzzlingly* exalta esse contraste intrigante para os astrônomos.