

この紙のゴール：初めて読む英文から、大意と必要な情報を制限時間内につかむ / 本文はこの教材のための書き下ろし（初見用）です。

Numbers that describe a group are useful, but they can also hide the people inside it.

In 1950, the United States Air Force faced a problem it could not explain. Its planes were crashing, and no one knew the reason. The pilots were well trained, and the machines were checked repeatedly. At last someone thought to look at the cockpit itself.

The cockpit had been designed in the 1920s around the average body of the pilots of that time. A researcher decided to test that assumption. He measured more than four thousand pilots on ten parts of the body, including height, chest, and arm length, and then asked a single question: how many of them were average on all ten?

The answer was none. Not one pilot fell into the middle range on every measurement. Even for any three of the ten parts, fewer than four percent of the men did.

The seat had been built for a person who did not exist. Once the Air Force made the seats, the pedals, and the straps adjustable instead, the accidents fell sharply.

An average is a fact about a group. It is not a description of anyone inside it. When a number stands for many people, ask who is actually sitting in the chair.

〔語注〕 cockpit=操縦席 assumption=前提 measurement=測定した項目 adjustable=調節できる

設問 本文の内容に合うものを選ぼう。

- (1) この文章がいちばん伝えたいことは？ 思考・判断・表現 答え（ ） 3点
- ア Poor training among the pilots turned out to be the main cause of the crashes.
- イ Measuring the body in ten places was highly unusual for researchers of that time.
- ウ A seat built from an average fits nobody, and an average describes no individual.
- エ Checking the machines repeatedly almost never reveals the real cause of an accident.
- (2) 1950年当時の操縦席は、何をもとに設計されていたか？ 知識・技能 答え（ ） 3点
- ア The average body of the pilots who flew in the 1920s.
- イ The body of the largest pilot flying for the Air Force at that time.
- ウ A standard set of sizes chosen by the engineers who checked the machines.
- エ The body of the one pilot who came out average on all ten measurements.
- (3) 4,000人以上を測った結果として、本文が述べているのは？ 知識・技能 答え（ ） 3点
- ア About forty percent of the men were average on three of the ten parts.
- イ Height and chest were the only two parts on which most of the men were average.
- ウ Not a single pilot was average on all ten parts.
- エ Only four of the four thousand pilots were average on all ten parts of the body.
- (4) 最後の段落で筆者が言っているのは？ 思考・判断・表現 答え（ ） 3点
- ア Bodies change over the years, so any design has to be reviewed from time to time.
- イ When a number stands for many people, ask who is actually sitting in the chair.
- ウ The idea of an average is mistaken, so we had better stop using statistics at all.
- エ Adjustable seating is a design that ought to be built into every kind of vehicle.

平均の人は、どこにもいない（標準） | 解答と出題のねらい

解答

(1)	ウ	第5段落 The seat had been built for a person who did not exist. と最終段落 An average is a fact about a group. It is not a description of anyone inside it.。
(2)	ア	第3段落 The cockpit had been designed in the 1920s around the average body of the pilots of that time.。
(3)	ウ	第4段落 The answer was none. Not one pilot fell into the middle range on every measurement.。3か所についてはfewer than four percent (40%ではない)。
(4)	イ	最終段落 It is not a description of anyone inside it. と When a number stands for many people, ask who is actually sitting in the chair.。

出題のねらい 定期テストに移すときの観点マップ

集団を言い表す数字（平均）が、その中のだれのこととも指していないという筋です。17の〈原因の取りちがえ〉とも、16の〈語の意味は場所で変わる〉とも、15の〈数字の由来〉とも違う〈平均は実在しない〉型で、「平均=ふつうの人の姿」と読んでしまう癖が、そのまま(1)と(3)の設問になります。数学Iのデータの分析、資料問題の代表値、アンケートの読み取りにそのまま効きます。読んだあとに「自分のクラスで、平均を出すと消えてしまうもの」を1つ挙げさせると、結びが自分の話になります。

設問	型	観点	テストでの使い方
(1)	大意（スキミング）	思考・判断・表現	概要把握。「空軍の事故の話」で止まらず、平均という数字の性質が主題だと届くか
(2)	明示情報	知識・技能	操縦席が何をもとに設計されていたか（1920年代のパイロットの平均の体）を正確に拾う
(3)	明示情報	知識・技能	4,000人以上を測った結果（10か所すべてで中くらいの者はゼロ）を、3か所の数字と取りちがえずに読む
(4)	筆者の結び	思考・判断・表現	結論の3文から、筆者が読者に勧めていることを選ぶ

3つの版の使い分け

同じトピック・同じ設問構造で、英文の語彙・構文と選択肢の言語だけを変えてあります（基礎=選択肢も日本語／標準=選択肢が英語／発展=設問も英語）。①クラスの帯に合わせて選ぶ ②同じクラス内で配り分ける ③基礎→標準→発展と日を空けて再挑戦—の3通りの使い方ができます。正解の記号は版ごとに違います（配り分けのときの写し合い対策にもなります）。

