

Question ID 81fdce2c

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Problem-Solving and Data Analysis	Percentages	Medium

ID: 81fdce2c

Last year, **200** students enrolled in an interior design program. This year, the number of students enrolled is **147%** of last year’s number. How many students are enrolled in the interior design program this year?

- A. **247**
- B. **294**
- C. **347**
- D. **394**

ID: 81fdce2c Answer

Correct Answer: B

Rationale

Choice B is correct. It's given that the number of students enrolled in an interior design program this year is **147%** of last year's number, which is **200**. **147%** of **200** can be expressed as $(\frac{147}{100})(200)$, or $(1.47)(200)$, which is equivalent to **294**. Therefore, **294** students are enrolled in the interior design program this year.

Choice A is incorrect and may result from conceptual or calculation errors.

Choice C is incorrect and may result from conceptual or calculation errors.

Choice D is incorrect and may result from conceptual or calculation errors.

Question Difficulty: Medium

Question ID 5bda30b9

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Problem-Solving and Data Analysis	Percentages	Medium

ID: 5bda30b9

Out of **300** seeds that were planted, **80%** sprouted. How many of these seeds sprouted?

ID: 5bda30b9 Answer

Correct Answer: 240

Rationale

The correct answer is **240**. It's given that **80%** of the **300** seeds sprouted. Therefore, the number of seeds that sprouted can be calculated by multiplying the number of seeds that were planted by $\frac{80}{100}$, which gives **300** $\left(\frac{80}{100}\right)$, or **240**.

Question Difficulty: Medium

Question ID 3a81cf17

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Problem-Solving and Data Analysis	Percentages	Medium

ID: 3a81cf17

Of 900,000 beads, 828,000 are silver. What percentage of the beads are silver?

- A. 8%
- B. 36%
- C. 72%
- D. 92%

ID: 3a81cf17 Answer

Correct Answer: D

Rationale

Choice D is correct. The proportion of the beads that are silver can be written as $\frac{828,000}{900,000}$, or **0.92**. Therefore, the percentage of the beads that are silver is **0.92(100)**, or **92%**.

Choice A is incorrect. This is the percentage of the beads that are not silver.

Choice B is incorrect and may result from conceptual or calculation errors.

Choice C is incorrect and may result from conceptual or calculation errors.

Question Difficulty: Medium

Question ID 4201712b

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Problem-Solving and Data Analysis	Percentages	Medium

ID: 4201712b

The length of the base of a certain parallelogram is **89%** of the height of the parallelogram. Which expression represents the length of the base of the parallelogram, where ***h*** is the height of the parallelogram?

- A. **$89h$**
- B. **$0.089h$**
- C. **$8.9h$**
- D. **$0.89h$**

ID: 4201712b Answer

Correct Answer: D

Rationale

Choice D is correct. It's given that the length of the base of the parallelogram is **89%** of the height of the parallelogram. Since ***h*** is the height of the parallelogram, it follows that the length of the base of the parallelogram can be represented by the expression $\frac{89}{100}h$, or **$0.89h$** .

Choice A is incorrect. This expression represents **8,900%**, not **89%**, of the height of the parallelogram.

Choice B is incorrect. This expression represents **8.9%**, not **89%**, of the height of the parallelogram.

Choice C is incorrect. This expression represents **890%**, not **89%**, of the height of the parallelogram.

Question Difficulty: Medium

Question ID f5013693

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Problem-Solving and Data Analysis	Percentages	Medium

ID: f5013693

Of 300,000 paper clips, 234,000 are size large. What percentage of the paper clips are size large?

- A. 22%
- B. 33%
- C. 66%
- D. 78%

ID: f5013693 Answer

Correct Answer: D

Rationale

Choice D is correct. The proportion of the paper clips that are size large can be written as $\frac{234,000}{300,000}$, or **0.78**. Therefore, the percentage of the paper clips that are size large is **0.78(100)**, or **78%**.

Choice A is incorrect. This is the percentage of the paper clips that are not size large.

Choice B is incorrect and may result from conceptual or calculation errors.

Choice C is incorrect and may result from conceptual or calculation errors.

Question Difficulty: Medium