

GRE Quant Foundation Worksheet

8 original questions, working space and separate answer explanations. Version 2026-10-27.

Scope

Quantitative Reasoning foundation practice; not Verbal or Analytical Writing.

This is an untimed foundation study sample, not an official examination or complete mock test. Author-reviewed learning materials; independent educator review and learner calibration remain pending.

How to use this worksheet

Work through the questions before opening the answer section. Write your calculation or the reason for your choice. After checking the explanation, return to the linked lesson for any unfamiliar distinction.

<https://openexam.site/exams/gre-quant/worksheets/>

QUESTION 1 / Integer structure

An integer n equals 50. What remainder does $3n + 1$ leave when divided by 6?

- A. 3
- B. 0
- C. 1
- D. 2
- E. 4

Working / reasoning:

Item gre-integers-1-1 | Lesson: <https://openexam.site/exams/gre-quant/learn/integers/>

QUESTION 2 / Equations and restrictions

If $2x + 12 = 28$, what is $3x - 2$?

- A. 40
- B. 58
- C. 22
- D. 8
- E. 26

Working / reasoning:

Item gre-equations-1-2 | Lesson: <https://openexam.site/exams/gre-quant/learn/equations/>

QUESTION 3 / Geometry with explicit conditions

A rectangle has length twice its width and perimeter 48 cm. What is its area in square centimeters?

- A. 48
- B. 24
- C. 256
- D. 128
- E. 512

Working / reasoning:

Item gre-geometry-1-3 | Lesson: <https://openexam.site/exams/gre-quant/learn/geometry/>

QUESTION 4 / Distribution summaries

One group has 6 values with mean 10; another has 8 values with mean 20. What is the combined mean?

Your answer: _____

Working / reasoning:

Item gre-statistics-1-4 | Lesson: <https://openexam.site/exams/gre-quant/learn/statistics/>

QUESTION 5 / Quantitative comparison strategy

Let x be any positive real number. Quantity A: $x/3$. Quantity B: $3/x$.

- A. Quantity A is greater.
- B. Quantity B is greater.
- C. The two quantities are equal.
- D. The relationship cannot be determined.

Working / reasoning:

Item gre-comparison-1-1 | Lesson: <https://openexam.site/exams/gre-quant/learn/comparison/>

QUESTION 6 / Fractions and magnitude

What is the exact value of $1/3 + 1/4$?

Your answer: _____

Working / reasoning:

Item gre-fractions-1-1 | Lesson: <https://openexam.site/exams/gre-quant/learn/fractions/>

QUESTION 7 / Functions and quadratic structure

The functions $f(x) = 2x + 10$ and $g(x) = -x + 34$ have equal values at what x ?

- A. 34
- B. -8
- C. 8
- D. 26
- E. $\frac{44}{3}$

Working / reasoning:

Item gre-functions-1-3 | Lesson: <https://openexam.site/exams/gre-quant/learn/functions/>

QUESTION 8 / Coordinates encode geometry

A line is perpendicular to $y = 2x + 6$ and passes through $(12, 9)$. What is its y -intercept?

- A. 15
- B. 9
- C. 21
- D. -15
- E. 3

Working / reasoning:

Item gre-coordinate-structure-1-4 | Lesson: <https://openexam.site/exams/gre-quant/learn/coordinate-structure/>

GRE Quant: Answers & Explanations

Compare the method or rule as well as the final answer. These explanations are study aids, not official scoring guidance.

QUESTION 1 / gre-integers-1-1

Answer: 1

1. n leaves remainder 2 on division by 6.
2. Therefore $3n + 1$ has the same remainder as $3(2) + 1 = 7$.
3. Reduce 7 modulo 6: the remainder is 1.

QUESTION 2 / gre-equations-1-2

Answer: 22

1. Subtract 12 and divide by 2 to obtain $x = 8$.
2. Substitute into the requested expression, not just x .
3. $3(8) - 2 = 22$.

QUESTION 3 / gre-geometry-1-3

Answer: 128

1. If width is w , length is $2w$ and perimeter is $6w$.
2. Therefore $w = 8$, and length = 16.
3. Area = $8 \times 16 = 128$.

QUESTION 4 / gre-statistics-1-4

Answer: $110/7$

1. Group totals are 60 and 160.
2. Add totals and divide by the combined size 14.
3. The combined mean is $110/7$.

QUESTION 5 / gre-comparison-1-1

Answer: The relationship cannot be determined.

1. If $x = 3$, the quantities are equal.
2. If $x = 6$, Quantity A is 2 and Quantity B is $\frac{1}{2}$.
3. Both assignments are allowed, so no single relationship is forced.

QUESTION 6 / gre-fractions-1-1

Answer: $\frac{7}{12}$

1. Use common denominator 12.
2. The numerator becomes $4 + 3 = 7$.
3. The reduced result is $\frac{7}{12}$.

QUESTION 7 / gre-functions-1-3

Answer: 8

1. Equate the outputs: $2x + 10 = -x + 34$.
2. Collect terms: $3x = 24$.
3. Thus $x = 8$.

QUESTION 8 / gre-coordinate-structure-1-4

Answer: 15

1. The perpendicular slope is $-\frac{1}{2}$.
2. In $y = -x/2 + b$, substitute (12,9).
3. $b = 9 + 6 = 15$.

References and scope notes

The questions and teaching explanations are original catalog materials. References support the selected concepts; they are not endorsements or a reproduced official examination bank.

GRE Quantitative Reasoning overview

<https://www.ets.org/gre/test-takers/general-test/prepare/content/quantitative-reasoning.html>

Siyavula Grade 10 mathematics foundation reference

<https://www.siyavula.com/read>

Selected quantitative foundations only; not full GRE coverage.

No scaled-score prediction or official adaptive simulation.

Editorial difficulty and estimated reading time have not been calibrated.

Independent educator review remains pending.

Content version 2026-10-27. Source catalog SHA-256: 373f8361c148f22bf8b4553457cd0a2de25c8962a858f46c2101fad14e9ca54a

For current exam-provider requirements, follow the official references in the exam guide. This PDF does not assess certification, professional competence or readiness.